INLAND SEAS

QUARTERLY BULLETIN OF THE
GREAT LAKES HISTORICAL SOCIETY

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*War Shipbuilding on the Great Lakes**

By LEATHEM D. SMITH

THE WAR which was so successfully completed last year against both Germany and Japan was truly a global war. Its successful outcome was dependent on our ability to transport safely men and materials to every corner of the globe for its successful prosecution. In spite of the rapid development of aircraft the transportation of large numbers of men and large quantities of material was limited. The bottleneck of the entire war effort was the ability of this country to build and operate enough cargo ships and to protect these ships in transit from the submarine, surface, and air attacks of the enemy. In every line of production and manufacture the United States has astounded the world by its productive ability. Its record in the shipbuilding field was one that nobody, even experienced shipbuilders, would or could have predicted. In memory it still seems impossible.

The Great Lakes area was greatly handicapped in the part it played in the shipbuilding program due to its isolation as land-locked lakes which could only deliver ships small enough to pass through the present St. Lawrence locks or shallow enough to be taken down the Illinois and Mississippi Rivers. If the St. Lawrence Waterway had been built years ago the Great Lakes area which has always been the greatest steel producing area in the country and also the greatest producer of machinery and equipment which goes into ships, could and would have led all other sections of the country in the production of ships for the war program. In spite of this handicap the value, number, and quality of ships produced in the Great Lakes yards makes a very sizeable showing. The following is a probably incomplete list of the ships produced in the various Great Lakes yards:

SHIPYARDS OF GREAT LAKES AND SHIPS BUILT DURING WAR PROGRAM

Defoe Shipbuilding Company, Bay City, Michigan.

(17—307′ DE)	(11—307′ APD)	(58—173′ PC's)
(4—220′ AM's)	(4—145′ Rescue Tugs)	(3—110′ Harbor Tugs)
(47—157′ LCI's)	(10—134′ YF's)	*All for Navy*

Total 154

*An address, with slides, given at the annual meeting of the Great Lakes Historical Society, May 25, 1946.

Manitowoc Shipbuilding Company, Manitowoc, Wisconsin.
(28—310′ Submarines) (36 Landing Craft) (10 Oil Tankers)
Total 74

Leathem D. Smith Shipbuilding Co.—Sturgeon Bay, Wisconsin.
(4—56′ Tugs) *U. S. Army* (9—258′ N3-S-A1 Cargo)
(4—173′ PGM's) (8—305′ Frigates)
(42—173′ PC's) (17—340′—5000 ton)
(10—YW Tankers) *All for Maritime Commission*
(3—175′ Net Tenders)
All for Navy
Total 97

Walter Butler Shipbuilding Company
Superior Yard (18—258′ N3-S-A1—3000 ton) (12—305′ Frigates)
(28—C1-M-AV1)
Duluth Yard (9—N3-S-A2) (14—C1-M-AV1's)
Total 81

Globe Shipbuilding Company, Superior Wisconsin.
(8—190′ Diesel Tugs) (8—305′ Frigates) (11—C1-M-AV1's)
Total 27

Froemming Brothers, Milwaukee, Wisconsin.
(8—190′ Diesel Tugs) (4—305′ Frigates) (14—C1-M-AV1's)
Total 26

American Shipbuilding Co., Cleveland, Ohio, and Lorain, Ohio.
(12—160′ Net Tenders) (6—12,000 Ton Bulk Freighters)
(5—Harbor Tugs) (4—Ammunition Lighters) (8—Army Tugs)
(13—305′ Frigates) (16—220′ Minesweepers) (17—180′ Sweepers)
Buffalo converted (2—Aircraft Carriers) Total 81

Great Lakes Engineering Works, Detroit and Ashtabula.
(10—12,000 Ton Freighters) Total 10

Pullman Standard Car, Chicago, Illinois.
(21—170′ PCE's) (13—PCER) (44—LSM's)
Total 78

Calumet Shipyard & Dry Dock Co., S. Chicago, Illinois.
(12—99′ Army Cargo) (13—100′ Tugs) (12—Distribution Boats)
Total 37

Henry Grebe, Chicago, Illinois.
(25— 136′ YM Sweepers) (18—YTL Tugs) (4—YW Tankers)
Total 47

Burger Boat Company, Manitowoc, Wisconsin.
(15—45′ Tugs) (8—85′ Rescue) (4—110′ SCS)
(14—135′ YM's) (2—ATR O 165′ Tugs)
Total 43

Zenith Dredge & Marine Iron Works, Duluth, Minnesota.
(38—Steel Coast Guard Cutters) (16—YG Tankers)
(6—Net Tenders) Total 60

Toledo Shipbuilding Co. (Coast Guard Cutters)
(10,000 H.P. Icebreaker *Mackinaw*) Total 1

Kewaunee Shipbuilding, Kewaunee, Wisconsin.		
(11—99′ Cargo) (7—176′ Cargo) (53—45′ Tugs)		
(10—85′ Steel Tugs) *All for Army*	Total	81
Sturgeon Bay Shipbuilding & Dry Dock Co.		
(4—53′ Dredge Tenders) (8—64′ Dist. Box Boats) (1—64′ Tug)		
(11—158′ Retrievers) (6—Converted Yachts) (14—176′ Supply)		
(15—99′ Army Cargo) (10—85′ Tugs) (10—45′ Tugs)		
	Total	79
Peterson Boat Works, Sturgeon Bay, Wisconsin.		
(12—Motor Launches) (16—110′ SCS) (8—85′ Rescue)		
	Total	36
Sturgeon Bay Boat Works, Sturgeon Bay, Wisconsin.		
(15—42′ Rescue)	Total	15
Marinette Marine Construction		
(3—200′ MC Barges) (6—65′ Tugs)	Total	9
	Grand Total .	1,036

In addition to these there are a great number of small craft produced in the boat building shops of wooden construction that are not listed here.

In quality of work and other factors which went to win for these yards the production awards the Great Lakes area had very good recognition. Navy "E" awards were won by Manitowoc Shipbuilding Company, Defoe Shipbuilding Company, Bay City, Michigan, and Leathem D. Smith Shipbuilding Company. Army "E" awards were won by Kewaunee Shipbuilding Company, Sturgeon Bay Shipbuilding & Dry Dock Company, and Sturgeon Bay Boat Works. Maritime Commission "M" awards were won by Butler Brothers with plants in Superior, Wisconsin, and Duluth, Minnesota, Froemming Brothers of Milwaukee, Globe Shipbuilding Company of Superior, and Leathem D. Smith Shipbuilding Company.

The history of our yard development at Sturgeon Bay was fairly typical of the yards which expanded greatly to handle the war program, some of them without any previous shipbuilding experience. We had been in the shipbuilding work for many years on a small scale and during the 1930's shipbuilding was almost at a standstill. So when we took our first contract for four small Army tugs at the end of 1940 we had on January 1, 1941, about 50 men with a payroll of $8,000 per month. Three years later on January 1, 1944, this payroll had expanded to 5,600 people with a payroll of about $1,250,000 per month. In expanding the personnel in all of the shipyards on this basis it was immediately apparent that experienced shipbuilders would not be

available for the job. On this account production of ships was set up on a production line basis the same as in other manufacturing lines and people were trained to do one job in the production line. This they learned to do quickly and in a very efficient manner.

The development also of welded ship construction in place of the former type of riveted hulled ships made it possible to prefabricate the hull of the ships in large sections. This work could be done either in the shipyard shops or, as the program grew beyond the capacity of these fabricating shops, ship sections were welded up in former bridge shops. Other steel fabrication facilities greatly increased the productivity of the shipyards. The simple explanation of the main difference between welded ships and riveted ships is that in a welded ship the butt between the ends of the plate is stronger than the plate itself. On a riveted ship the butt is the weak part of the plate strake and it is necessary to shift the butts in the plating on adjacent strakes, so it is practically impossible to fabricate large plated sections of ships hulls under riveted construction. This means that the shipbuilding berths are tied up for a much longer period between keel laying and launching because practically all the erecting work must be done on the building berth.

This war program also showed a great increase in the use of diesel propelled units for the smaller class of ships. In the 97 ships which we built we installed 140 main diesel propulsion units and 25 main propulsion units of steam. These diesel units range from 800 to 2000 H.P. and the steam from 1500 to 2750 H.P. The ships which we built were of eight different types for both the Navy and Maritime Commission. Our first ship was delivered in February, 1942, and our 93rd ship in October, 1945.

Another novel development in ship construction in addition to training unskilled men on a production line basis was that women were used in almost all of the crafts of shipbuilding. Out of a payroll of 5600 we had 600 women working on outdoor ship construction, including mainly welding, fairing, cleaning and painting, and electrical work. With our most efficient younger men taken by the armed service the shipbuilding program would have been practically impossible without the assistance of the women in this production.

The ships built by our yard covered most of the types built by the Great Lakes yards and I will now show them in the following pictures, together with a description of the ships and the names of the other yards which built these same types.

Our first contract was for four small steel diesel tugs for the U. S. Army Engineers of which I do not have any pictures. Our first con-

tract with the Navy was for the building of 173-foot PC's or sub-chasers. This first picture shows the launching of one of these vessels during the winter season when it was necessary to break the ice before launching them.

The next picture is the installation of one of the 2000 H.P. diesel engines. These ships were twin screw with two of these 2000 H.P. units These engines were built by General Motors Diesel Engine Division, Fairbanks Morse and HOR Company of Hamilton, Ohio.

The next picture is a PC at the outfitting dock. After launching they are taken alongside of the outfitting piers where piping, electrical, insulation, and all other outfitting work was completed. They are then taken out on trial in Lake Michigan, as shown in these two pictures. These vessels develop a speed of 22 knots. They are used for fighting submarines and were armed with depth charge racks, "Y" guns for throwing 300-pound depth charges, 3-inch guns, 40 mm. and 20 mm. guns for anti-aircraft work, and mouse traps at the bow were throwing 50-pound contact bombs. They were all equipped with radar, under water listening devices, and all known modern means of submarine detection. We had 42 of these PC's under contract. The last four were converted to PGM's or gun boats and served in the Pacific covering landing parties. This is a picture of one of these PGM's on trial.

We have record of the loss of three of these PC's, the first one during the invasion of Sicily, the second on "D" Day off the Normandy Coast, and the third one in Okinawa.

Defoe Shipbuilding Company of Bay City, Michigan, was the design yard for the PC's and built a large number of them. Our yards were the only two yards on the Great Lakes building the 173-foot PC's.

Our first maritime contract was for the construction of nine 3000-ton 258-foot coasters or freighters. These were delivered to the British and taken out of the St. Lawrence by British crews. We designed these ships for our own construction and our design was later adopted by the United States Maritime Commission for its entire coaster program and about 150 ships were built from our plans. Walter Butler Shipbuilding plants in Duluth and Superior also built these N3-SA2's, as they are called by the Maritime Commission.

During the early stages of our new plant construction for the mari time work the sections of these vessels fabricated in our shops were set up on the berths by locomotive crane. The next picture is a launching of one of these N3's. The following pictures show the departure of these ships for England with the British crews aboard. These ships were of steam propulsion and for the first time in this country a compound uniflow engine was used, the engine being built by the Ajax Iron

Works of Corry, Pennsylvania, and the boilers by the Wickes Boiler Company of Saginaw, Michigan. The boilers were equipped for hand firing coal burning at the request of the British. The ships were equipped with British guns, plastic armor, and other conventional anti-submarine fighting devices.

In 1943 the submarine menace had become so bad that even though we were organized to build the N-3 Coasters, the late Admiral Vickery of the Maritime Commission asked us to change to the building of frigates, which were vessels of the same size as the destroyer escorts and for anti-submarine service. The plans of these ships were taken from the twin screw frigate developed by Canadian Vickers of Montreal. A design organization was set up by the shipyards and the Canadian plans were converted to welded ship hull construction and the use of American machinery and equipment. We built eight of these ships assembling and completely welding the sections in our shops up to a maximum weight of 50 tons each.

The next is a picture of a launching of one of these nearly completed frigates with all the machinery installed. These ships were 305 feet in length, 34 feet beam with twin screw 5600 H.P. reciprocating steam engines and oil fired water tube boilers. They had a speed of 22 knots. They were fully equipped with 3-inch and anti-aircraft guns, depth charge racks, and "Y" guns for throwing of depth charges. The next two pictures show these ships under trial in Lake Michigan. The next picture is of a camouflaged ship just before delivery. These frigates were also built by American Shipbuilding Company at Lorain, Walter Butler Shipbuilding Company at Superior, Globe Shipbuilding at Superior, and Froemming Brothers in Milwaukee. Their draft was so deep that they had to be lifted by pontoons in order to float them down the Illinois and Mississippi Rivers.

The second type of ships we built for the Navy was peculiar looking vessels 175 feet in length called net tenders. They were propelled by 1800 H.P. diesel electric generators and motors. They were equipped with very heavy booms and horns over the bow which could handle 50 tons in weight. They were used for the handling of anti-submarine nets around anchored fleets and to enclose harbors against submarine sneak attacks. After the war they were used largely for salvage work and the clearing of harbors from wrecked ships. This first picture shows a steel section of a net tender leaving the fabricating shop. The next picture is of a net tender just prior to launching, showing the peculiar horn construction at the bow. Then we have a launching of one of these ships and a picture of one on trial in Lake Michigan. They are fully equipped with guns for anti-aircraft and anti-submarine

defense. The net tenders were also built by American Shipbuilding Company at Cleveland and Lorain and by Marine Iron Works and Zenith Dredge Company at Duluth. We built three of these vessels.

Our last Navy contract was for ten small tankers called YW's. These were 174 feet in length with 800 H.P. General Motors Diesel engines. These carried about 7500 barrels of oil, gas, or water. These tankers were also built by Manitowoc Shipbuilding Company and Marine Iron Works and Zenith Dredge Company at Duluth.

Our last Maritime contract was for seventeen 5000-ton freighters called C1-M-AV1 types by the Maritime Commission or AK's by the Navy who operated them. These ships were 340 feet long, 50 feet beam, 29 feet deep, and had an 1800 H.P. heavy duty diesel drive. We installed diesels of three different manufactures in them. Nordberg engines from Milwaukee, Busch-Selzer engines from St. Louis, and HOR engines from Hamilton, Ohio. These ships were very completely equipped with a large number of electric winches for the handling of cargo, the 30-ton cargo booms for the handling of tanks and other war equipment in the Pacific. Because of the press of work the sections for these ships were fabricated in steel fabricating shops in Chicago and Wisconsin. The first picture shows the assembling of fabricated sections on the berth as they were shipped to us by rail. In these ships we drove the first rivets in the war program, the gunnel bar being riveted to the stringer plate. The cost of these ships was about $2,000,000 each. Our best time for construction was 89 days from keel laying to delivery; this included 24 days from launching to delivery. The second picture shows one of these ships ready for side launching. Then we have the launching and the departure of ship for trials in Lake Michigan. These C1-M-AV1's were also built by Walter Butler Shipbuilding Company at Duluth and Superior, the Globe Shipbuilding Company of Superior, and by Froemming Brothers of Milwaukee.

In addition to the pictures shown of the different types of ships built at our yard there were 307-foot DE's built by Defoe Shipbuilding Company, 28 submarines, 10 oil tankers, 36 landing craft, built by Manitowoc Shipbuilding Company, 190-foot tugs built by Froemming Brothers and Globe Shipbuilding Company, and landing craft by Defoe Shipbuilding Company and Manitowoc Shipbuilding Company. There were also 220-foot and 180-foot minesweepers built by American Shipbuilding Company at Lorain and large Navy tugs for the Maritime Commission and the Army built by Defoe, Calumet Shipbuilding Company of South Chicago, Kewaunee Shipbuilding, and Sturgeon Bay Shipbuilding & Dry Dock Company. In addition to these ships built for war service and delivered from the lakes either by

the St. Lawrence or by the Illinois and Mississippi Rivers, the American Shipbuilding Company converted two former Great Lakes passenger vessels to aircraft carriers for training aircraft pilots at Chicago and sixteen 12,000-ton ore carriers were built by American Shipbuilding Company at Lorain and Great Lakes Engineering Works at Detroit and Ashtabula. Toledo Shipbuilding Company in addition to tenders built for the Coast Guard the largest icebreaker in this country, the 10,000 H.P. Diesel Electric *Mackinaw*.

At Sturgeon Bay we had two shipyards and two boat yards building steel and wooden vessels. In all 258 vessels and boats of all types were built in the little port. In a small city with a normal population of 5,000 the peak employment in the shipyards ran to almost 7,000 workers.

In delivery of these ships by the Illinois and Mississippi River route to Gulf of Mexico arrangements were made by the Navy for the equipping of the bridges over the Chicago Drainage Canal between Chicago and Lockport, Illinois. However, one bridge, the Western Avenue Bridge, could be raised only to a height of 39 feet above the water level. On this account top superstructure, masts, and cargo handling gear had to be removed at Chicago for reinstallation at New Orleans. The Illinois River and the Mississippi River have a project draft of nine feet so that ships with greater draft had to be ballasted or lifted by pontoons fastened at the stern up to a draft of about eight feet six inches.

The following pictures of plant development at our yard are typical of the expansion of facilities in most of the yards that developed for war shipbuilding construction. This aerial view was taken at the time of starting of the PC contract for the Navy and the building of a new pier and shipbuilding berths for construction of the coasters for the United States Maritime Commission contract. These new piers were 650 feet long, 200 feet wide, involving the driving of some 5,000 piling to support the ships and cranes. This picture was taken in November 1941. The next picture was taken a year and a half later, in September 1943, when the yard was fully engaged in the construction of escort vessels.

Since the completion of the war program a number of the yards have dismantled their plants and gone out of business and the problem now for all of the remaining yards is the problem of conversion and use of their facilities for some type of peacetime construction and use. With all the limitations restricting deliveries of ships from the Great Lakes we feel that the yards in that area produce the maximum that they could under the circumstances. They produced a great variety of ships of very fine quality, all of which played an active part in the winning of the war.

Perry's Victory on Lake Erie

By John Bennett

In the June number of "The Month at Goodspeed's" bookshop, Boston, under the head of "Perry of Erie," pp. 285-292, is an account of the battle of Lake Erie, accompanied by reproductions of two rare prints illustrative of the two phases of that famous victory on the inland sea.[1]

The accompanying text is further illustrated by two plans of the fight, first and second stages.[2]

The battle-plates are rare and handsome, clean impressions of the first state, expertly repaired, and priced at $350.

Yet rarer, perhaps, than these rare prints is the broadside ballad of "Perries Victory on Lake Erie," printed in the office of the "Scioto Gazette," Chillicothe, Ohio, for distribution during the local celebration of Perry's triumph, in September, 1813, and reprinted in the regular issue of that ancient paper in its issue of September 12th.

The first printed impression of this ballad is of unknown place, date and origin, its author unknown. But during the triumphant wave of enthusiasm which swept the whole Northwest this ballad was printed in both broadside form and proof-slips and sold through the countryside by wandering vendors, who advertised their wares by singing the words and air of the song. The air, in all probability a monotonously simple and unmelodious chant accompanied by an inharmonious fiddle obbligato, has been lost this many a year; but in the early boyhood of the writer hill-billy fiddlers and peripatetic minstrels, on stock-sale days and during the week of the county fair, were accustomed most nasally to whine a much-curtailed remnant of the original song on street-corners of Chillicothe, adjacent to the site of the old first capital of Ohio, with the inevitable child and battered tin-cup for donations from the dubiously entertained. Along with "Cruel Barbara Allen" and the dolorous remnant of "St. Clair's Defeat," "Perry's Victory" was a great favorite of the backwoods minstrels.

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1 Stauffer, Nos. 2288 and 2289; Grolier Club catalogue, 1942, Nos. 121, 122.

2 From "The Naval Monument," 1816.

The ballad of "Perry's Victory" was vastly popular throughout the Northwest, where the importance of that decisive engagement was more keenly felt than anywhere in the original thirteen states. It meant that the Northwest Territory and the Mississsippi Valley should be American, not British; and that the United States should extend from the Great Lakes to the Gulf of Mexico, instead of being fenced in perhaps on the borders of Ohio. It was the only occasion in history when an entire British fleet, commanded by a veteran of Trafalgar, surrendered to any enemy's flotilla. That Oliver Hazard Perry, just 27, had built his fleet, recruited, organized and trained his crews and armed his vessels in a practical wilderness, and had won a signal victory after a hard-fought and bloody battle, gave that triumph a high place in the hearts of the dwellers of the Northwest.

The triumphant song, or ballad, if judged as poetry, is of little merit; but as a popular paean of victory it dismisses criticism. The following version gives the text of the original broadside, errors and all. It will be at once perceived that it is not in traditional ballad metre, but has a cadence all its own:

"PERRIES VICTORY ON LAKE ERIE"

You tars of Columbia give ears to my story,
Who fought with brave Perrey, whose cannon did roar,
Your vallour has gaind you an immortal glorey,
And fame that will last until time is no more.

Columbian tars are the true sons of Mars
Who rake fore and aft when they fight on the deep;
On the bed of Lake Erie commanded by Perrey
They caused many; Brittons to take their last sleep.

On the tenth of September let us all remember
As long as the globe on its axes reals round
Soon our tars and marines on Lake Erie were seen
To make the read flag of proud Britton come down.

The van of our fleet was brought up complete;
Commanded by Perrey the Lawrence bore down;
Our guns they did roar with such terrifick power
That saviges trembled at the dreadful sound.

The Lawrence sustain a most dreadful fire;
She fought three to one for two glasses or more;
Whilst Perrey undaunted did firmly stand by her
And on the proud foe heavy broadsides did pore.

Her masts being shattered, her rigging all tattared,
Her sails all in ribbands, her wheel shot away,
And few left on deck to manage the wreck,
Our heroes on board her no longer could stay.

There was one gallant act of our noble commander
Whilst writing my song I shall notice with pride:
When launching the smack that carried his standard
A ball whistled through her quite close by his side.

Says Perrey those villians intend shure to dround us;
But push on, my brave boys, you need never fear;
And then with his coat he plugged up the boat,
And through sulphour and fire away he did steer.

The famed Niagara, now proud of her Perrey,
Displayed all her bannars in gallant array;
Full twentyfive guns on her deck she did carry,
Which soon put an end to the sad, bloody fray.

The fire of the Brittons grew shorter and shorter;
The signal was given to break through their line;
Whilst from starbord and larbord and from every quarter
The lamps of Columbia most gloriously shined.

The bold Brittish Lion now roared his last thunder,
When Perrey attacked him cloas on his rear;
The American Eagle soon made him coush under
And roar out for quarters as you soon shall hear.

O had you been there I vow and declare
That such a grand sight you had nere saw before;
When six bloody flags that no longer could wag
Ware laid at the feet of our brave Commodore.

Brave Elliott whoes vallour must not be recorded,
On board the Niagara so well played his part,
His gallant assistance, to Perrey afforded,
Will place him the second on Lake Erie chart.

In the heat of the battle whose guns loud did rattle,
The Lawrence a reck and her men near all slain,
Away he did steer and safe brought up the rear,
And by this grand manover the victory was gained.

'Twas delightful to see those noble commanders
Imbracing each other when the battle was ore,
And vewin with pride those invincible standards
That never had yealded to any before.

Says Perrey, Brave Elliott, come, give me your hand, sir;
This day you have gained immortal renown,
And as long as Columbia Lake Erie commands, sirs,
Let brave Elliott with Laurels be crowned.

Great Britton may boist of her conquering heroes,
Her Rodneys, her Nelsuns, and all the old crewe;
But Rome in her glory near teald such a storey,
Nor boasted such feats as Columbians can do.

That whole Brittish fleet was captured complete;
Not one single vessel from us got away;
And prisoners some hundreds, Columbians wondered
To see them all ankerd and moored on the bay.

May heaven still smile on the shades of those heroes
Who fought with brave Perrey, whose cannons did roar,
And checked the proud spirit of those murdering Neroes
Who wished to drive us and make us base slaves.

Columbians sing, and make the woods ring,
And toast those brave heroes, by sea and by land;
Whilst Brittons drink Sherry Columbians drink Perrey
And toss it about with a full glass in hand.

Of the much-contracted remnant of this long battle-chanty, as sung on the corners when I was a boy, I can recall only the final stanza, which differs a trifle, but effectively, from the text of the broadside:

"Then everyone sing till we make the woods ring!
Let us toast our brave heroes by land and by sea:
While Britons drink sherry, Columbians drink Perry
To the land of the brave and the home of the free."

The dolorous air, however, to which these words were sung, appears to be gone forever into the limbo of forgotten song.

The Wilson Fleet, Freight Pioneers

By Jewell R. Dean

The oldest steamship company engaged in the transportation of bulk commodities on the Great Lakes is the Wilson Transit Company of Cleveland which traces its beginning to 1872 when Captain Thomas Wilson, a native of Scotland transplanted in America, decided it was more profitable to own his own ship than merely to sail one for another person or company. He ordered built at St. Clair, Michigan, a steamer of the latest type of those days and set up the progression of ships which, backed by sound and progressive management, produced the Wilson Transit Company of today—owner and operator of twelve ships.

The first ship was the *D. M. Wilson*, named for the captain's only son, then a baby. The *D. M. Wilson* was put into service at a time when recovery from the nation's exhaustive Civil War was under way, when the West was only beginning to become a bread-basket, when population east of Pittsburgh was becoming industry-minded and iron works were pushing westward across the Alleghanies, and when Marquette, Michigan, was becoming established as an iron ore port of importance and promise. It was a significant period for Wilson Transit to make its debut.

The State Canal around the St. Marys Falls Canal already had found its two tandem locks inadequate to handle the growing trade out of Lake Superior and a contract had been let for the Weitzel Lock which gave way only a few years ago to the MacArthur Lock. The Weitzel Lock was to be deeper, longer and wider and handle larger ships in a single lift. It was a development of vast promise to Captain Wilson and a number of other vessel owners.

The *D. M. Wilson*, delivered in 1873, was of 757 gross tons, not a small ship for those days. She was built of wood, carried sail to boost her speed when winds were favorable and was a trim vessel, as shown by the oil painting which today hangs on the wall of the Wilson Company.

Prosperity favored the captain-turned-owner and in 1880 he had built at Gibralter, Michigan, the steamers *Minnehaha*, 1,822 gross tons, and the *Hiawatha*, 1,398 gross tons. Growth of the Wilson fleet then

accelerated with the steamer *Tacoma*, 1,879 gross tons, being built for the company at Cleveland in 1881. She was followed in 1882 by the *Wallula*, 1,924 gross tons; in 1884 by the *Kasota*, 1,660 gross tons, and in the same year by the *George Spencer*, 1,360 gross tons. These three ships also were built in Cleveland.

In 1886 the company inaugurated a series of "firsts" which has marked its progressiveness and success. The year marked delivery to Wilson Transit of the lakes' first steel steamer, the 2,257-ton *Spokane*, which was constructed by the Globe Iron Works on Cleveland's old river-bed on the site of the recently liquidated yard of the American Ship Building Co.

Also in 1886 the steamship company took delivery of the steamer *C. Tower, Jr.*, 1,125 gross tons at the Globe yard. She was of wooden construction. Eleven years elapsed before ship No. 10 for the company was constructed and in that year, 1897, the company built four vessels. The first of these was the company's first schooner, the *Wadena*, her name marking a return to the series of Indian names. This vessel was built in Cleveland as were the steamers *Missoula*, 1,926 tons, the *Sitka*, 1740 tons, and the *Yakima*, 1,986 tons. In 1889 the 2,065-ton *Olympia*, a steamer, was delivered to the company at Cleveland. Four years later, 1893, the Wilson fleet's second and last schooner, the *Yukon*, was turned out at West Bay City and the steel steamer *Yuma*, 2,194 tons, at Cleveland.

Up to this point all vessels had been built of wood except the *Spokane* and *Yuma*, but now the switch to steel construction was permanent. Subsequent vessels were as follows: 1896, steamer *W. D. Rees*, 3,760 gross tons, built in Cleveland and the largest ship on the lakes at the time of delivery; 1897, steamer *Andrew Carnegie* (now the *A. W. Osborne*), 4,300 tons, built in Cleveland; 1898, bought the barge *D. Z. Norton* (now *Sagamore*) from the Globe Iron Works, 3,251 gross tons, the only barge ever owned by Wilson Transit; 1899, steamer *Henry W. Oliver* (now *S. H. Robbins*), 4,909 gross tons, built at Lorain, Ohio; 1900, *Capt. Thomas Wilson* (now the *Kickapoo*), 4,318 gross tons, built at Port Huron, Michigan; 1906, *Charles S. Hebard*, 6,291 gross tons, built at Cleveland; 1908, *J. E. Upson*, sistership of the *Hebard*, same yard; 1913, purchased from the Gilchrist Transportation Co., Cleveland, steamer *Gen. Garretson* (now the *C. A. Paul*), 6,297 gross tons, and steamer *H. P. McIntosh* (now *E. S. Kendrick*), 6,294 gross tons; 1916, purchased the steamer *C. A. Kotcher* (now the *F. E. Taplin*), 4,650 gross tons, from Detroit interests; 1922, steamer *James MacNaughton*, 8,299 gross tons, built at River Rouge, Michigan; 1925, steamer *William C. Atwater* (now the *E. J. Kulas*), sister ship of the *MacNaughton*, built at

River Rouge; 1942, steamer *Thomas Wilson*, 8,758 gross tons, built at Lorain.

Deletions (not complete) from the fleet have been: 1895, steamer *Missoula* foundered in Lake Superior and schooner *Wadena* was sold; 1901, steamers *Olympia*, *Yakima*, *Sitka*, *Wallula* and *Tower, Jr.*, and schooner *Yukon* were sold to Gilchrist Transportation; 1903, barge *Norton* sold to Pickands Mather & Co.; 1908, steamer *Spokane* wrecked in Lake Superior; 1917 steamer *Yuma* sold, cut in two and taken to the coast for war uses; 1937, steamer *Rees* sold to Cargo Carriers, Inc.; 1942, sold the *Capt. Thomas Wilson* (*Kickapoo*) and the *Osborne* to the United States government to apply as trade-ins on purchase price of the steamer *Thomas Wilson* from the United States Maritime Commission. The 620-foot *Wilson* was the first of 16 ships the government agency built for augmenting the ore-carrying fleet during the war. Companies purchasing the ships were permitted to trade-in an approximate tonnage of obsolete ships to be scrapped by the government. Twenty-nine of the 36 ships traded in, including the *Kickapoo* and *Osborne*, are now back in the hands of a private concern for scrapping.

The present Wilson Transit fleet, the ships easily recognized by sailing men by their black hulls, white superstructure and the large "W" on the smokestacks, are in order of size: the *Thomas Wilson*, flagship, *E. J. Kulas*, *James MacNaughton*, *Robert B. Wallace*, *C. A. Paul*, *E. S. Kendrick*, *Robert L. Ireland*, *A. T. Kinney*, *J. E. Upson*, *C. S. Hebard*, *Frank E. Taplin* and *S. H. Robbins*.

Captain Thomas Wilson, the fleet founder, was born in Fifeshire, Scotland, October 3, 1838, and early became a sea-loving youth, according to biographical sketches. His father and grandfather, as well as male forebears on his mother's side, were captains. One sketch says that Captain Wilson "became proficient in the common branches of an English education, sufficiently so as to qualify himself for any business career upon which he might embark." It continues: "Trained as he was in a home of high morality and godliness, he grew up to be a conscientious, manly boy, commanding the confidence of all who knew him."

When the son was 16 the family moved to America and upon arrival at New York young Thomas shipped before the mast for three years on the ocean, rising from ship boy to mate and to master. He then transferred to the Great Lakes as a mate. Soon he was a master on the "inland oceans" and he commanded a number of the finest ships of those times before he became a ship owner and manager.

He was married in 1870 to Mrs. Mary Cannon, widowed daughter of the Hon. David Morris of Cleveland who was the first man to ship

coal out of Cleveland by lake vessel. The son, David M., born in 1871, died when 13. Three daughters of the captain were Mrs. Clara Cannon Paul, Mrs. Mabelle Wilson Stearns and Mrs. Annabelle Wilson Nobles. Mrs. Paul is deceased. Mrs. Stearns lives in Chesterland, Ohio, and Mrs. Nobles in Shaker Heights, a Cleveland suburb.

Captain Wilson was active and prominent in Freemasonry, liberal but unostentatious in aiding others and sturdy, frank and honorable above question in business. He placed a sum in the hands of his pastor at Thanksgiving and Christmas time with instructions that it be distributed to the poor of the church. He strictly enjoined the minister that his name was not to be mentioned in connection with the gifts. He was a liberal supporter and served as president of the Seaman's Floating Bethel. He was a long-time member of the Euclid Avenue Congregational Church. The captain was president of the Ship Owners Dry Dock Co. which was organized in Cleveland in 1888 and provided dry docks large enough to handle the largest ships on the lakes at that time. The docks, at the head of the old river-bed, were sold to the Globe Iron Works in 1897. Captain Wilson was the second president of the Central National Bank, serving from 1894 till 1900. The latter was the year in which the captain died. He became ill when traveling abroad and died in Jerusalem.

J. E. Upson, Cleveland industrialist, was president of Wilson Transit, 1901-07; Edward Morton, 1907-11; A. W. Thomson, 1911-28, and Captain Joseph Sutherland Wood, successor to Mr. Thomson, continues the leadership that has kept the company strong and progressive at a time when most American freighters on the lakes are members of fleets owned, or aligned with the large steel companies. The lot of the "independent" fleet progressively has become harder.

Captain Wood, a nephew of Captain Wilson, was born July 14, 1874, at Forsythe, Michigan, in the iron ore country around Marquette. He started sailing when 19 years old as an oiler on a whaleback. He switched to the deck department during that first year and became a second mate in 1896, a first mate in 1898 and a master the same year. His first command was the steel steamer *Volunteer*. The captain came ashore as marine superintendent of Wilson Transit in 1913. By 1929, he had risen to the company presidency which he still holds.

Captain Wood is one of the best known men in the lake shipping industry. His influence extends well beyond his own company. He was president of the Lake Carriers' Association 1931-38 and is the oldest active member of the association's Shore Captains Committee. He was a member of the board of managers of the American Bureau of

Shipping for many years. He is a member of the board of directors of the Wheeling & Lake Erie Railroad, the Lake Carriers' Association, the Great Lakes Towing Co. and the American Ship Building Co. The captain's oldest son, Alexander T. Wood, is now president of the Lake Carriers' Association. He has been re-elected annually since 1938 when he succeeded his father. The son is vice-president in charge of operations of Wilson Transit and titular leader of American shipping on the lakes through his association position. During the war he was director of the Great Lakes Carriers' Division of the Office of Defense Transportation and the leader in coordinating and expediting movement of vital materials on the lakes.

Some of the "firsts" to the credit of Wilson Transit have been mentioned, but this record is impressive and deserving of more recognition. The company blazed the trail in a number of ship construction developments as well as increasing safety at sea. Building of the first steel steamer in 1886, the *Spokane*, already has been mentioned. The first electric lights on a Great Lakes ship were installed in 1887 on the *Yakima*. The *Rees* was the largest steamer to date when built in 1896, but Wilson Transit also led the lake fleet forward in 1893 similarly when its steel steamer *Yuma* came out, the largest on the lakes. The company's *Kulas*—then *Atwater*—was among the first group of ships on the lakes in 1924 to start the use of the highly efficient gyro compasses which now are considered standard equipment. The *Atwater* also came out new in 1925 with the first of the Wood-patented hatch covers which now have been adopted by most of the large freighters. This cover, patented by Captain Wood, is one-piece sheet steel and eliminated the arduous job of "battening down" hatches with tarpaulins. The radiotelephone, now used by nearly all lake ships in communications, had its first installation on the *Atwater* in 1934. When the Wilson fleet's flagship, *Thomas Wilson*, was delivered at Lorain, she became the first lake freighter with the ocean-developed cruiser stern and streamlined stern frame. This ship also was the first on the lakes with a complete Lentz (German-patented) steam engine that possesses greater efficiency than the usual steam engine.

Methods of operating lake ships as well as an insight into the profits of the early iron ore and coal trade are learned from studying one of four old Wilson company ledgers which Captain Wood presented a couple of years ago to the Western Reserve Historical Society, Cleveland. The financial record of the wooden steamer *Kasota* is chosen for the inside story of steamship operation in the 1880's.

Construction of the ship was begun in 1883 with $62,500 going to Thos. Quayle's Sons under the building contract, $28,000 to the

Globe Iron Works for the engine contract and $12,208.91 required outside of the contracts. Total cost of the ship was $102,708.91.

On the first trip, in May, 1884, $1,088.58 was received for transporting 1,676 tons of coal up the lakes, $1,334.96 was the revenue from 1,804 tons of iron ore loaded at Escanaba and $468.00 was entered as a refund from Globe Iron Works on casing of the boilers as well as an overcharge of $17.64 from Ward & Jackson in connection with construction, or outfitting. Total receipts were $2,909.18, nearly half of which was profit. The ledger then shows the first melon split from the ship's operation. This division revealed who were shareholders in the ship for which Captain Wilson was manager on a fee basis, $50 to $100 a trip. The division was as follows:

R. M. Lauchlan, Agent—6/16	$450	B. L. Pennington, et al—2/16	$150
Thos. Wilson—4/16	300	Anna Wilson—1/16	75
Thos. Quayle's Sons—2/16 .	150	Mary Wilson—1/16	75

It will be noted that Thos. Quayle's sons had an eighth interest, apparently taken as part of their building contract. Such practice by shipyards was general at the time with the yards later selling their share. The division also reminds us how loose was the ownership of the fleets of those days. Stockholders might be considerably changed from one ship to another with Captain Wilson, as manager and sizable stockholder, being the only thread connecting a group of ships. Relatives, neighbors and business acquaintances frequently went together, put up a few thousand dollars and built a ship to be managed by a Wilson, Minch or Tomlinson.

After the first trip the *Kasota* ledger shows $190 balance was carried to the second trip after which a pot of $1,600 was divided. On this trip the steamer added $621.70 to her revenues by towing the schooner *Our Son*. On the third trip she towed the *Our Son* for $695 and had wheat downbound at three cents a bushel. Again $1,600 was divided. On the fourth trip she carried coal and wheat and towed the schooner *Niagara*. Only $800 was divided for some unexplained reason and $2,252 carried over. She had only ore downbound, the upbound trip being light and probably accounting for the reduction taken in the splitting of profits. However, $1,600 was split after the trip. On the sixth trip she took upbound 1,706 tons of coal, 54 tons of railroad iron and brought back 547 tons of copper in addition to 45,000 bushels of wheat. After all trips of the season $1,600 was split except as noted above and after the 11th and final run $2,400 was divided. The total divided during the year was $16,800, or a return of around 16 per cent. The ship was sold in 1890 by the owning group for $87,250.

Grandee of the Erie Isles

By Grant Ann Rideout

When the Connecticut Land Company surveyed the area they had purchased in the Western Reserve they discovered it was about one million acres less in area than was generally conceded. This was an unexpected problem and difficult to solve. It was then that the value of islands lying in the western end of Lake Erie became evident and appreciated and these were apportioned to purchasers for the purpose of equalization. These islands, some twenty-two in number, although small in size, have made their mark in history and few places have offered hospitality to so many men of rank and prominence. Joseph de Rivera St. Jurjo, one of these, is the subject of this article.

When the purchasers divided the land they did so by draft, in the years 1798, 1802, 1807 and 1809. The deeds were made to the allotment shareholders by the trustees of the company and with the last draft the company was dissolved after an existence of fourteen years.[1] In the draft of 1807 several islands were given to Pierpont Edwards[2] of Connecticut, one of the associates in this company. This included South and Middle Bass, Sugar and Ballast Islands which during the following years came into the possession of Judge Ogden Edwards[3] and his brother Alfred,[4] and it was from the latter that Mr. Rivera purchased his islands in 1854.

The previous year, 1853, Alfred Edwards had a daughter, Alice Glover Edwards, about to be married and to her he deeded[5] South Bass, Gibraltar, and Ballast islands. The deed is a long and complicated document in which Eli Whitney,[6] son of the renowned inventor, is appointed to act as Trustee for Alice Edwards. This deed is dated October 3, 1853, therefore when Mr. Rivera bought these islands

1 Western Reserve Historical Society, Tract No. 96, p. 74.

2 Son of Jonathan Edwards, noted divine of New Haven.

3 Justice of the Supreme Court.

4 U. S. Consul at Manila, P. I., 1852.

5 Deed on file at Port Clinton.

6 Nephew of Alfred Edwards.

in the following July the business was conducted by Eli Whitney who was "acting in the interests of Alice Edwards now the wife of Elisha Dyer Vinton of the Providence Plantations, Rhode Island." This deed bears the date July 12, 1854, and was witnessed by J. N. Balestier,[7] Wall Street, New York. This document refutes the erroneous idea prevalent on South Bass that Mr. Rivera bought the islands from Eli Whitney as owner.

Of all the early settlers on South Bass Joseph de Rivera was by far the most interesting. It is generally supposed he was a Porto Rican, especially as this claim is set forth on his monument at Put-in-Bay. But in conversation with a friend in 1886 he gave the following account of his life:

"I was born a poor boy in Spain in 1813, and at the age of thirteen came to America. After a lapse of a few years I was engaged as representative of a New York house which took me much abroad. I did well, and in time went into business for myself and accumulated wealth in the foreign commission trade. I had always had a taste for agricultural pursuits on a large scale and so in the year 1854 I made a tour of the Southern states with a view to opening up a plantation manned with Spaniards, but I was told that a plantation cultivated by whites in slavery days would never prosper, so desisted. Some friends in New York having written me of the beauties of the Lake Erie Islands, I came back North and visited them. At Sandusky I engaged a boat to make the trip and three unsuccessful attempts were made to reach the islands. I then went to the harbor near where Lakeside now is and a lone fisherman and his boat were chartered and the voyage made during the night. This was thirty-two years ago in 1854.

"The old Mansion house was the only structure on the island and to this I made my way. Next morning I was up with the sun and walked about the island and on the beach. In forty-eight hours after I first set foot on Put-in-Bay, I owned the five islands, South Bass, Middle Bass, Sugar, Gibraltar, and Ballast at a cost of forty-four thousand dollars. From that time on I have circulated between New York and my island home, summering here.

"I first turned Put-in-Bay into a sheep ranch having a herd of about two thousand. Gradually I disposed of these and converted the island into a fruit farm: as other people turned this way I disposed of my interests until I now have only three hundred acres left. Jay Cooke paid me three thousand dollars for Gibraltar. Fifteen years ago I

7 A member of "The Great House of Balestier of Singapore, East Indies" and uncle of Mrs. Rudyard Kipling.

retired from business, a millionaire, the estate consisting of slate works in Vermont, a West Indian sugar plantation, a large property in Kentucky, and other interests. Four years ago I came to Put-in-Bay to live permanently, where my family visits me in the summer time. It was here I expected to pass quietly the remainder of my life and it is here the news came of my financial ruin."[8]

The "financial ruin" was caused by obligations assumed in aid of a son, a sugar merchant in New York who failed in 1886 for a very large sum of money. Joseph de Rivera died a poor man.

When Mr. Rivera purchased all this property it was with the distinct idea that he would sell land in farms and lots and so get the islands populated. This purpose he fully carried out and in this respect he differed from the former owner, Alfred Edwards, who refused to sell even a small tract to the U. S. Government on which to erect a lighthouse.[9] Mr. Rivera disposed of much of his land in ten-acre lots, and to the shrewd sound business principles of this man the islands owe a great deal.

In the early days of his ownership Mr. Rivera spent little time here, apparently making only flying visits. In matters pertaining to the islands he depended greatly upon the judgment of his agents upon whom he placed much responsibility. While the Edwards family owned these islands their agents lived in what was known as the Mansion house on South Bass. It was built by Judge Edwards about 1822 as a place of residence for his agents and to lodge any men hired as laborers on the islands. This building was considered a wonderful dwelling and was the only building of size or consequence on the island. In fact it was the one and only habitation for strangers or transients. It was here Mr. Rivera spent his earliest days. Here Mr. Edwards' agent, Philip Vroman, resided until the year 1838 when he married and built his own house. This was for many years Mr. Rivera's headquarters. His meticulous temperature recordings were always "taken on Philip Vroman's piazza."

Vroman was of Dutch descent, a very trustworthy man who had been employed as agent by the Edwards family for many years and remained on in the same capacity. Knowing well both the needs and potentialities of the islands, he was a most valuable assistant to the new owner and Mr. Rivera often expressed his appreciation of this man's wise judgments and decisions.

Being a man of action Joseph de Rivera did not let the grass grow

8 Waggoner, Clark. History of the City of Toledo and Lucas Country, N. Y., 1888, p. 32.

9 Information at Put-in-Bay.

under his feet but immediately after his arrival in 1854 made plans for "a saw mill and stave mill attached, with a sixty horse power engine. Building to be thirty by eighty feet, three saws, one to cut stave bolts and two burr saws to edge the boards. Building must also have a lean to." This was completed by the fall of 1854 and his two agents, Philip Vroman and Andrew Wehrle, were to "cut more roads over the island and sell the wood." The next industrial venture seems to have been sheep raising and all sheep were shipped to the New York markets. In 1856 he was raising and marketing both wheat and corn, shipping the crops to the East. In the same year he sold wood at twelve shillings a cord and paid Wehrle seven shillings a cord "for cutting, carting and shipping logs." This was while they were working on the road that "Wehrle cut to run South."

The industry carried on at Ballast Island seems to have been largely the marketing of gravel which he sold at ten cents a ton, "but as to wheelbarrows it will not be convenient for me to furnish any at that price."[10] Ballast Island he sold in 1869, but during the fourteen years he owned it he did a flourishing business in gravel and stone which was shipped to Cleveland, Toledo, and Detroit. Stone was sold by the cord, one cord equaling approximately five and one-half tons. There was also a brisk trade in lime and cobblestone.

In the fall of 1856 "after two years of successful business the saw mill stopped operating and all hands left." We are not given the reason for this but his business all through the islands seemed to be in a muddle and he was at the same time involved in some litigation perhaps in connection with the closing of the saw mill. He writes "I am going to Sandusky to tell the lawyers what I intend to do." In another letter he mentions the fact that "the whole country suffers from distemper." The information he conveys in these letters gives us a glimpse of his firm character. *He* was going "to tell the lawyers" and not wait for *them* to tell him what to do.

The work on South Bass always came first with him, then business affairs of Middle Bass. He had a good dock at both places, largely due to the interest taken by Philip Vroman. Much cedar was shipped from Middle Bass. It may have been more plentiful there.[11] It was sent by the cord to Sandusky and elsewhere, sometimes as "cedar posts."

In May 1855 Mr. Rivera shipped a cargo of stone to Toledo on the boat *Visitor* which went down off West Sister Island. In his diary

10 Rivera letters and diary.

11 Red cedar was cut on these islands as early as 1777, and shipped to Amherstburg, Canada, to build British ships.—Canadian Archives, Ser. C, v. 729, p. 37.

there is an entry relating to this wreck and among his letters we find two which are interesting:

May 16, 1855

To Charles G. Keeler
Toledo, O.

By the *Visitor* I send you a load of Cobble stones at the rate of $5.00 per cord and request you to send me on her return 1 barrel of good flour and the balance in cash. I understand from your agent that you will want a good many cobble stones during the season which I shall be happy to furnish you provided you can make the payments satisfactory. What is understood by this will be explained to you by M--- with whom I conversed on the subject.

Yours respectfully

J. de Rivera

May 20 '55 Put in Bay

Charles Keeler
Toledo O

Above is a copy of a letter I addressed you for the *Visitor* which vessell I learn with regret was lost off the West Sister. Her cargo consisted of three cords of stone for which I have charged you $15.00 which please remit by the *Mountain Maid.* I now forward to you another load of cobble stone at $5.00 per cord and request you to send me on her return five barrels of flour and to hand the balance of the money to Capt. Gifford by whom I also expect you to send the money for the next load as agreed with your agent. Please send the contents of 2 or 3 barrels of flour in sacks.

Yours resp

J de Rivera St Jurjo

In 1858 Rivera with two others began the culture of grapes on South Bass and their success was remarkable. It shows the thoroughness with which this man undertook all of his industries that he had the soil of the island analyzed and tested for grape culture before putting any money into it. In such ways he developed the islands and led where others followed.

One of the famous caves on South Bass is located on what was once part of the Rivera estate on the South side of the County road. After Mr. Rivera's death his daughter, Mrs. Danssa, and her husband operated it for some time. But Mrs. Danssa died, as did her husband, shortly after and the property consisting of about one hundred and fifty acres was sold by the heirs to the Put-in-Bay Resort Company.

In 1886 Mr. Rivera stated that he had only about three hundred acres of land left and probably at the time of his death, three years later, he had relinquished most of that. After his death his widow, in 1893, disposed of two parcels of land on South Bass "to release the dower interest of said grantor" and this appears to be the end of the Rivera interests in Lake Erie.

Mr Rivera's diary reveals many of his idiosyncrasies. This little old-fashioned book which measures 4 x 2½ inches and one-half inch thick is bound in a seal leather cover, and written on the fly leaf is the following:

> Property of J de Rivera of Inwood on Hudson or at 117 Pearl St, N.Y. City (house of J. de Rivera & Co) N.B. If found please to return as above & a suitable compensation will faithfully be made.

In this diary all of his expenditures for each day are minutely detailed as:

Sept 22

Pd Mary White (a very nice good quiet woman but near sighted) in full to date in fact over	$5.00
11 lbs roasting meat	2.20
Pd young Hays for ½ hr extra work after sundown	.15
	7.35

25th

To Mr VanWagoner on acct rustic house to be finished to my entire satisfaction	$20.00
Bal on washing del on 10th inst	50
	20.50

Evidently Mr. Rivera objected to pay a plumber's time as much as we do today. An entry:

Oct 2

Pd Hays for plumbing work new kitchen trap	3.50
also for *time taken to go for faucet*	25
Pd gas bill 23 August to 23 ultimo	
29.200	
27.200	
——— 2000 ft	3.00
	6.75

He always entered his gas bill in this fashion. He apparently did not use a checking account but drew money from his firm in cash and paid out the same way. On the 10th of May:

Bills sent to Lewis by registered letter	
U.S. Treasury notes 1869	
A 3.577.408	$20.00
A 3.588.029	20.00
Greenbacks of 1878	
A 537.746	10.00
B 7.3.389 786	2.00
	52.00

His precise record of the numbers of these various bills is a good example of his prudence and precision.

In one of the entries he mentions paying a boy seventy cents for "fly ketchin" and again twenty-eight cents for the same kind of labor, finally a day or two later he buys a fly trap for thirty cents. Probably the "fly ketchin" ran a little too high. One wonders if he paid by the dozen or by the hour. Another:

Pd for mending pants	25
To two little children in Ry station 25-20	5
	.30

These children received five cents but why the peculiar entry cannot be figured out. He made many entries in a similar manner. The following entries were copied at random from the diary.

On yesterday at 6 PM came from down town Engaged Ann McManus from an employment house as cook washer and ironer at 14 per month also Honora McCarty as chamber maid at 10 per month. Made it completely understood that both are to be on trial.

Sept 21 pd Ann Mcmanus for 9 days wages to date and she left of her own choice	$4.50
Overpaid her by error by a x dollar bill for a 1	9.00
Additional stamp on letter to Tom put on by the postman	1
Sharpening horses shoes	1.25
Letter to Ann McManus claiming $9 overpaid her yesterday	
Present to West's negro boy 25-20	.5
Received from Ann McManus money due me by mistake	$9.00
Discharged Miss Nelly Carter for misconduct and paid her more than her due	2.35

Promised to make a present of two dollars to Honora McCarty provided she behaves herself as well as she has since she came and provided she stays in service with us at least 6 months.

July 31

1 cake Sapolio	.10
70 cabbage plants	.70
1 box lager beer	1.25
Meat 10½ lbs	2.10
Lost or stolen or perhaps overpaid in N.Y.	4.00

Dec 24

For child 13-10	3
" 2 little children	20
" Charity	10
	.33

This was his generosity the day before Christmas, thirty-three cents.

Dec 13

Pd for 8 brooms	2.20
Laborer one week	7.50
Pd Baur & Datter 1 pr French Fayence mantel vases	35.00
Express on jug of whiskey for my friends who call	25
Rec of Mr --- check no. 348 on St. Nicholas bank for rent of house 45 west 22 st for month of November	75.00

Sometimes he went with very little cash in his pocket for instance:

Cash on hand		$1.68
To 3 children	1.50	
" childrens fund	10	1.60
		.08

Next day he writes "drew sizable amount," "cash taken from cash at PiBay."

He was in so many ways an eccentric man. While living at his home on the Hudson we notice him dickering for a week over the white-washing of a picket fence. At last he found a man who agreed to do it "and give it one clear coat for one cent a foot." The price being satisfactory the man came out and measured it and a few days later Mr. Rivera had his gardener make his measurements and the work was done. Then we find this entry:

> K--- measured on the 3rd. On the 10th I sent my gardener to measure and examine the finished work. K---'s measure was 49 and 10 12ths short, but as the work was miserably done I claimed the excess measurement for his neglect in doing poor work.

If by "49 and 10 12ths" he means feet, then he really gained about fifty cents, and the last part of the above entry looks like salve for his conscience.

On the 16th of October Mr. Rivera left his home on the Hudson for a trip to the islands. His entries relating to this are very interesting.

> Weather generally fair but too hot for the season. Dry. This kind of weather everywhere I was today. Took the Tarrytown train to 42 St at

10.30 a m & after changing trains at Rochester arrived at Buffalo shortly after midnight and stopped quite a long while. Weather clear and bright. After changing trains at Buffalo got started again about 1a m and arrived at Sandusky a few minutes after 9.30 a m. through from N.Y. in 23 hours.

Expenses	Ry fare	16.05	by Nyc & Hrrr
	Fruit	10	
		16.25	
	Cab hire at Sandusky	.25	
	Newspaper	.2	
	Dinner	.50	
	To porter West house Sandusky	.15	
	Return fare on steamer *Jay Cooke*	1.00	

Oct 17
Left Sandusky per steamer *Jay Cooke* at 3 p m touching at Kellys and Middle Bass to discharge and get freight arrived at PiBay at 6 p m. Bo't sweets for D V's children 80 cents.

He remained on the island until the twenty-first of November, and each day he donated "10 cents for the children's fund." He was very fond of children and while in Florida during the winter season sent fruit for the children at Put-in-Bay. He kept a careful record of the weather and temperatures.

Nov 8, at PiBay cloudy in the early morning and during a short period several times in the day but the greater part of the time clear and very warm too warm by much for the season I did not have time to look at the thermometer but I am of the opinion it must have been between 85 and 7 in the shade between one and two p m wind from the Southard. I suppose this will be called Indian summer.

Nov 12 lovely sunshine and warm too warm. Nov 13 This is a lovely clear day more like May than November. 14th No sight of the immense showers of falling stars advertised in the papers to take place at 1 a m The sky was however very bright to the North with vivid flashes of lightning which I did not see for I was not called up, much thunder and lightning. 15th Rain and hail with strong westerly winds. 17th The wind changed last night to the southeast and soon veered to the east and north east making a nasty night of it still the steamers have performed their trips with little delay. This is the first easterly wind since I came here and I am told the first easterly storm in many months. 19th up till noon partially clear and moderately windy after 12M the wind began to freshen and was blowing almost a gale before sun down but yet clear and not so disagreeable. After sun down a

regular north or northwesterly gale began to blow and was raging furiously when I went to bed at midnight. The gale continued to rage from midnight on and the house of P Vroman was badly shaken. 20th It has continued to blow all day with a partially cloudy sky but seems to moderate slowly. No steamers at all are running today and although ready to go away I cannot leave till this gale slacks. The suddenness of this gale and very cold weather must have caused many disasters on Lake Erie. The steamer *Jay Cooke* came in late tonight 21st Gale continued all night but began to moderate rapidly this morning it is however still very cold. Cloudy at times and early in the afternoon quite a fall of snow. Left PiBay per *Jay Cooke* at 7.15 a m and after usual stoppages reached Sandusky shortly after 10 a m At 10.45 started for Monroville where I arrived at 11.25 and at 1.20 took the Chicago express train for N.Y. which was near one hour behind time. Reached Buffalo after 9 p m the train increasing instead of decreasing its arrearage. Changed trains and went on reaching N.Y. the next day at 11.30 A M."

Mr. Rivera kept just as accurate an account of the weather at his home on the Hudson and one wonders how a man so occupied with business could take the time for it. An entry reads: "Part of the day cloudy and threatening to storm and part clear, with heavy dew, in spite of which sign it was cool and partially cloudy as above stated. Wind part of the time from north east, light. Barometer down one degree. Thermometer at 6 a m 55 at 12M 60 at 3 p m 64. Sent black mare to pasture at Murrays."

In one entry we find this line:

"1ns 2fs 2t 1ws 1h 2hf." This was his laundry list and translated reads 1 nightshirt, 2 flannel shirts, 2 ties, 1 white shirt, 1 hose, 2 handkerchiefs.

Judging from some of the old letters it seems to have been difficult to hold men on these islands as laborers. In one letter sent to a man in Canada Rivera wrote:

> I write to tell you what I will do for you if you and your wife will return to these unfortunate islands. I will let you have all of East Point Put in Bay for the years 1856-1862, also fishing grounds. One half of all gross sales on the dock of cobble and lime stone. For clearing the land you will have all of the first crop raised on same, also the second crop if you raise corn or potatoes during the first year, one acre of land for your garden one half of the rents collected for fishing, and the use of one cow all to be rent free. You are to build a good dwelling and small dock I will give you framing timbers and floor boards. Answer me to number 10 Broadway New York. you may have the use of oxen free.

He also tried to induce a man to come to South Bass from Middle Bass. The man demurred evidently thinking the ice was unsafe. To this Mr. Rivera replied by letter that conditions were all right and

"even a *timid* man may cross without being overmuch cared." Joseph Rivera had a very strong will and greatly objected to dictations. In reply to an applicant for the position of bookkeeper at a salary of twenty-five dollars per month, he wrote:

"I strongly refuse to pay you the sum of twenty five dollars per month but will offer twenty dollars and give you as well, good board."

The ground for the first school in Put-in-Bay was bought from Mr. Rivera and comprised one-quarter of an acre "to be used for schooling purposes and none other whatever." This was purchased by the Board of Education November 20, 1855. In this deed Mr. Rivera states he is of Stratford, Connecticut. In July 1878, he sold an additional three-quarters of an acre to the same Board "to be used for public and gratuitous education and none other purposes whatsoever." One of the interesting things Mr. Rivera did for Put-in-Bay was to deed a tract of land along the water front to be used by the public as a park and which according to the deed can "never be exploited for money, it is to be forever free for the people." A free dock went along with it. Three trustees were appointed to have full charge of it and the Chamber of Commerce helps maintain it. In 1867 Mr. Rivera also deeded to Put-in-Bay Township sufficient ground to be used for a new cemetery and it is in this place he is buried.

Sugar Island with its thirty acres never held much interest for Mr. Rivera. He may have considered it too small to bother with, at any rate in 1859 he sold it for one thousand dollars. Gibraltar he sold to Jay Cooke for three thousand dollars, the deal taking place one morning at the breakfast table. Mr. Cooke asked what he would take for it and Rivera replied "not a thousand dollars." Mr. Cooke then jokingly offered one thousand and one dollars but wound up by paying three.

Another one of Mr. Rivera's peculiarities was the manner in which he recorded the amount of fuel used in his home on the Hudson. He separated the amount burned in the furnace, range and heater and figured it all in pounds. For instance:

"Furnace 12.435, Range 11.200, Heater 3.470, in all 27.105 lbs" or as we would say today, about 13½ tons.

Joseph de Rivera St. Jurjo, as he wrote his name, was twice married and by his first wife, Josephine, had two sons, Henry and Thomas, and one daughter who married Dr. Danssa of New York. His wife Josephine must have died sometime between 1863 and 1872 as all deeds given by him after 1872 are signed by his second wife, Rachel de Rivera. In 1875 Rivera and his wife Rachel were traveling in Italy and while there sold a lot on South Bass to a man in Toledo. The

deed was executed and acknowledged in the U. S. Consulate in the city of Florence.

Mr. Rivera educated his sons in Spain, and they were lodged in the home of one of Rivera's oldest friends in Barcelona. At this time, being engaged in the cork business, he made many trips over there and was very emphatic in demanding that these boys should be educated as simply as possible, "with little or no knowledge of their father's wealth that there may be no ideas of snobbishness instilled with their learning. I wish these sons of mine to be educated as children of the middle class, and so fit them for life in this democratic country. If you have any further trouble with them in regard to their spending habits please send them home and I shall put them where they shall have to pay attention to rules and regulations." In the end one ruined him.

Joseph de Rivera St. Jurjo was born poor and died poor, but in his lifetime he rose to be a millionaire entirely through his own efforts. He recognized opportunities and grasped them; an energetic worker, he lived day by day to his fullest capacity and it seems the irony of fate that he should have spent the last three years of his life in comparative poverty. His persistent determination to accumulate wealth caused him to engage in many varied industries such as sugar in the West Indies, lumbering, lime, stone and gravel as well as wheat and corn raising, sheep ranching and fruit growing on the Erie islands, cork in Spain, slate quarries in Vermont, and real estate in New York and Kentucky. A man of distinction, he was highly respected for his integrity and keen business acumen. A great amount of thriftiness made him at times appear somewhat penurious, yet some of his deeds are evidence of quite a generous nature.

Mr. Rivera counted among his best friends the Vanderbilt, Gould, Jay Cooke, Balestier and other notable families of the day. He died in 1889 at Put-in-Bay where he was residing permanently and is buried in the cemetery for which, in 1867, he had given the land. On his monument is inscribed:

Joseph de Rivera
Native of Porto Rico
Died May 31, 1889
Aged 76 years

It is hard to understand why he is designated a "native of Porto Rico" when he distinctly stated his birthplace was Spain.

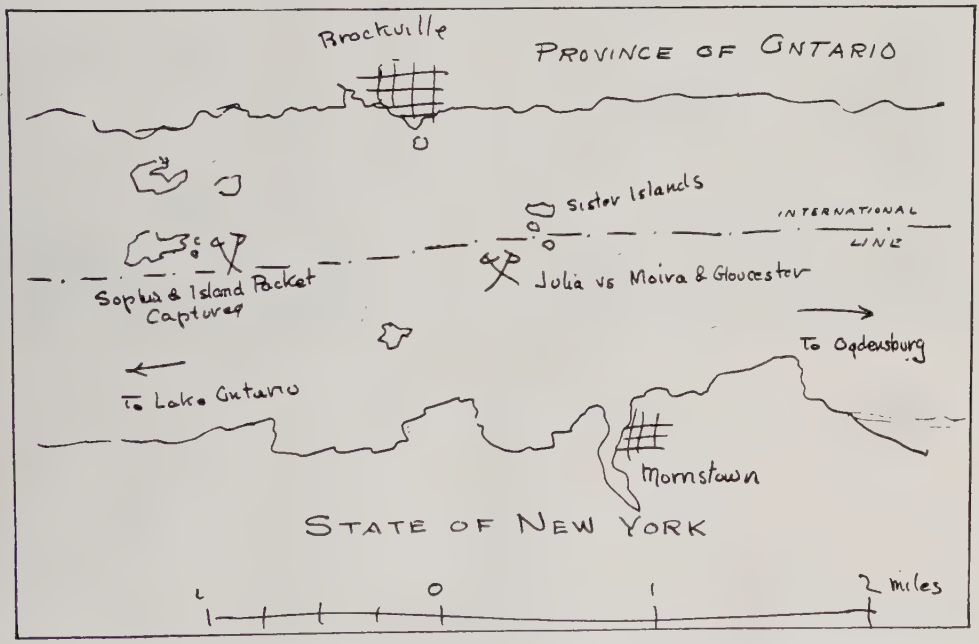
Many of his old letters and entries in his diary indicate the great love he had for his island home where he enjoyed so much happiness and in the end suffered such bitter disappointment. No doubt his burial place is just "where he longed to be."

Leathem D. Smith
1884 - 1946
Trustee, Great Lakes Historical Society, 1945-6
(See Page 209)

THE LEATHEM D. SMITH SHIPBUILDING COMPANY yards, showing wartime expansion.
(1) November 1941 (2) September 1943.

VIEW of OSWEGATCHEE on the RIVER St LAURENCE. July 1765

Reproduced by permission of the Public Archives of Canada.
(See Page 185.)



MAP showing the scene of the *Julia's* fight, reproduced from the Treaty of Ghent Official survey of the boundary. Sketch by Lt. Col. F. C. Curry.
(See Page 187.)

GREAT LAKES HISTORICAL SOCIETY joint exhibit with the U. S. Coast Guard and the U. S. Power Squadrons, Cleveland, at the Mid-America Exposition, Cleveland

Sesquicentennial Celebration, the Public Auditorium, May 23 - June 2, 1946. Photograph by courtesy of William J. Carnes.

KINGSTON, Upper Canada, about 1825, showing the Naval Establishment on Point Frederick and the old battleships roofed over according to the Rush-Bagot Treaty of 1818. (See Page 190.)

THE MONTAUK. (1) As she first came out. (2) As the *King Edward*, 1902-1910. (3) As the *Forest City*, 1910-1923. (4) At Duluth (before dismantling) as excursion steamer. Photographs courtesy of the Reve.end F. C. St. Clair and Louis Baus. (See Page 207.)

THE STEAMER SPOKANE of the Wilson Transit Company. First steel ship on the lakes.
(See Page 160.)

THE SOPHIA MINCH beached near Ashtabula (See INLAND SEAS, July 1945, p. 46-49.)
Photograph by courtesy of Henry G. Steinbrenner.

Six Little Schooners

By FREDERICK C. CURRY

WHEN PRESIDENT MADISON declared war on Great Britain in June 1812, eight little schooners lay in the harbor of Ogdensburg, New York, and Ogdensburg, then as now, was the lower limit of lake navigation.

The greatest change in the hundred odd years that have elapsed is that whereas now the great 500-foot Upper Lake freighters discharge their cargoes into elevators or directly into cars for shipment by rail to Atlantic ports; in the 1800's, transshipment was made either to bateaux to run the rapids to Montreal, or to wagons to be taken by road to Lake Champlain and thence to New York. For a famous road, wide enough to take eight cattle abreast, linked "Oswegatchie," as Ogdensburg was then called, to the New England settlements as early as 1792, being mentioned in that year by Lady Simcoe in her famous diary.[1]

Between this road and that connecting Oswego with the Mohawk valley lies the great mass of the Adirondack mountains, which even to this day is penetrated by very few roads. Ogdensburg's value as a port was thus assured although there were few settlements scattered along the southern bank of the St. Lawrence, unlike the Canadian shore, which had been largely settled by Loyalist emigrants from the New England States after the Revolutionary War.

The British had been loath to hand over Oswegatchie at the end of that conflict and had in fact retained it till June 1796, when the transfer was made under Jay's Treaty of Amity, and the town site was purchased by Samuel Ogden from Alexander MacComb who had bought over a million acres in Northern New York when the "ten townships" were offered for sale in 1781. Hence the modern name of "Ogdensburg."

Now with war again on their hands the British realized the need of a strong post at the head of the St. Lawrence rapids, for all supplies both military and civil for Upper Canada, had to be brought up this river for there were no roads worthy of that name.

1 Lady Simcoe, wife of the first lieutenant-governor of Upper Canada accompanied her husband on his travels through the province and her diary is a valuable record of intelligent observation.

Therefore they began construction of a fort directly opposite the mouth of the harbour at Ogdensburg which they later called "Fort Wellington." The width of the river at this point was only about 1800 yards, which brought the harbor within extreme range of the 24-pounders with which the fort was armed. It became important to remove the schooners from this menace before the fort was completed.

So on June 29th, while they were beating their way up river against the prevailing west wind they were sighted from near Maitland, a little village on the Canadian shore about seven miles above Ogdensburg, by a militia officer named Dunham Jones who gathered a party of volunteers in small boats and pursued the schooners.

After a galling chase of six miles, the Canadians overhauled the little fleet among the islands just above Brockville and succeeded in capturing two of them, the *Sophia* and the *Island Packet*. Their crews and passengers were landed and the vessels burned and the other six, realizing their danger, escaped down wind to Ogdensburg where the bridge over the Oswegatchie was raised and the vessels concealed above it.

To prevent any repetition of this attempt the British sent down two brigs armed with 14 and 12 guns respectively, the *Duke of Gloucester* and the *Earl of Moira*. These lay in midstream effectively blockading the harbor to the great annoyance of the citizens of Ogdensburg who were not averse to doing a little business with their enemy neighbors even during wartime. Meanwhile the schooners chafed at their moorings and their owner chafed at his desk and was probably relieved when Major Darby Noon, writing to General Porter on the 4th of July added this postscript:

> Your brother's vessels are safe at Ogdensburg and Captain Wolsey is doing all in his power to collect and arm vessels to carry them up to Sackett's Harbour and the assistance of General Brown.

To attempt to break the blockade the armed schooner *Julia* was sent down the river. She packed a long 32 pound gun on a swivel amid-ships and two long 6's with a crew of 60 men. This swivel gun was a typical Yankee invention, simple and effective. It was the forerunner of the modern gun-turret and enabled the gun to be pointed in any direction without swinging the ship as was necessary where guns were mounted in batteries firing through portholes, which, while giving the gunners more protection, limited the arc of fire.[2]

On July 31st at about 3 o'clock, the *Julia* met up with the *Moira* and *Gloucester* in the open water between Morristown, New York, and

2 An interesting description of this invention and the building of the Lake fleets is contained in *The Fleet in the Forest* by Carl Lane.

the Canadian town of Brockville. The two brigs immediately dropped anchors, brailed up their canvas and got out their spring-lines.

The *Julia* accepted the challenge, outgunned as she was, and then until darkness fell the three vessels battered each other with great gusto. However, due to the inexperience of the gunners there were no casualties on either side. But the *Julia* had decidedly the best of the encounter for she was able to slip away in the dusk and smoke to Ogdensburg with but a single shot-hole to plug, while the *Moira* had been so badly hulled she was forced to lighter her guns at Brockville before proceeding to Kingston for repairs. No record seems to have been left of the *Gloucester's* part in the affair and some accounts mention only the *Moira* as being in the battle, but Hough, the historian of Northern New York mentions both brigs quoting a letter from General Jacob Brown to Governor Tompkins as his authority.[3]

The *Julia* took station at Ogdensburg until September when, during the armistice she was able to escort the six schooners to Sackett's Harbour. Here they came under General Brown's eagle eye and he wrote to the Governor asking His Excellency, "Why in the name of all that was holy" these vessels were not armed and "manned with such men as this nation could furnish." He lists the schooners that were at the "Harbour," among others, as the *Genesee Packet*, *Experiment*, *Collector* and *Lord Nelson* and at Oswego, the *Charles and Ann* and *Diana.*

When Commodore Chauncey arrived in November with Henry Eckford, he lost no time in fitting them out and when, on November 8th, he hoisted his pennant aboard *Oneida* as Commodore he had in his van the six little schooners under the new names of *Conquest*, *Growler*, *Pert*, *Scourge*, *Gov. Tompkins* and *Hamilton* respectively, mounting in all some 40 guns of various calibres and manned by 430 men.

Opposed to Chauncey's fleet were the *Royal George*, *Moira*, *Prince Regent*, *Gloucester*, *Simcoe* and *Seneca*, the first two being listed as "ships" and the rest as schooners. They mounted 92 guns, all firing broadside, and carried 806 men. Nearly double Chauncey's strength.

On the 9th Chauncey fell in with the *George* and chased her into the Bay of Quinte when nightfall let her escape him but the following morning he took a small schooner and burned her, and sighting the *George* again gave chase to Kingston Harbour where he engaged her for an hour and a half under the guns of the fort. Being out-gunned and with night coming on and a gale rising, he stood off till dawn, when the wind still rising he beat out into the lake meeting the *Simcoe* and filling her so with shot that she sank at her moorings though she escaped

3 *History of Jefferson County*, by Franklin B. Hough, Albany, 1854, p. 465.

him. On the same day he took a large schooner coming from Niagara and sent her down past Kingston convoyed by *Growler*, hoping this slight escort would draw out the *George* but her commander failed to respond.

Later in the same cruise the *Growler* managed to cut the schooner *Elizabeth* out from under the *Moira's* escort and Chauncey with the rest of his fleet chased the latter into Kingston. Among his prisoners was a Captain Brock conveying the effects of his relative, the late General Brock, to Kingston and the Commodore with great civility allowed him to proceed with his baggage. He left the *Julia*, *Pert*, *Fair American*, *Ontario* and *Scourge* to blockade Kingston.

The action of the *George*, the largest vessel on the Great Lakes, in retiring before *Oneida's* onslaught was attributed to inexperience and poor leadership, the British having not then drawn on the Royal Navy for seamen to man their lake fleet as they did in the years following.[4]

All winter long the ship-yards on both sides of the lake had rung with the sound of mauls and caulking mallets as the British sought to outbuild their American rivals. For while the year 1812 was disastrous to America's land forces their fleet had almost absolute control of Lake Ontario.

Sir James Yeo with 80 shipwrights and 200 seamen had arrived at Kingston and had several vessels on the ways while Henry Eckford was laying the keel of the brigs *Jefferson* and *Jones* at the "Harbour" where he launched them on the 7th and 10th, April respectively, while laying the keel of another, the *General Pike* on the ninth.

On the 22nd of the same month 1700 troops under General Pike embarked from Sacketts Harbour for an unknown destination. The fleet sailed on the 25th and the betting was even for York or Niagara. On the 27th the fleet arrived at York and the same day it fell to their arms. Chauncey's little schooners helped cover the landing and took part in the action. Among the captured vessels was the *Duke of Gloucester* which was in port awaiting repairs.

The fleet returned to the "Harbour" on May 13th bringing with them the body of General Pike who lost his life in the attack. Burial was made at Fort Tompkins.

On August 7th, while maoeuvering off Niagara a terrific gale struck the fleet and the *Hamilton* and *Scourge* overturned and were lost with all but sixteen men from both crews. Our eight little schooners were now reduced to four. On the 9th the *Julia* and *Growler* were taken by the enemy and renamed *Confiance* and *Hamilton*.

4 *Naval History of the United States*, by Fenimore Cooper, ii, 333.

Fighting swung from one end of the lake to the other whenever the rival fleets met for the British no longer avoided battle though their primary military duty was the convoying of supplies to Upper Canada.

On September 5th, near the False Ducks, Chauncey re-captured the *Julia* and *Growler* with three gunboats and some 300 men of De Watteville's regiment bound from York to Kingston.

For the rest of the year Chauncey was blockading Kingston while Wilkinson was gathering his army at Oswego for his descent on Montreal. Late in October he began slipping his boats into the south channel of the St. Lawrence in the intervals of the autumnal gales which were playing havoc with his smaller vessels. *Growler* arrived at Grenadier Island, at the mouth of the lake, on the 31st, with 230 men of the 20th Regiment, and Chauncey lay off Carleton Island, a key position to the South channel which had been seized at the start of the war by an enterprising sergeant, to prevent the British from occupying the ruins of Fort Haldimand there.

By chance, British gun-boats scouting around the eastern end of Wolfe Island spotted Wilkinson's army on the move and though they were driven off with some loss they escaped to Kingston with the news.

Then began a curious race down the river with the British forces rowing desperately down the northern channel while Wilkinson, screened from view by the long bulk of Wolfe Island, continued down the southern.

The two forces met at Chrysler's Field, just above the Long Sault rapid, on November 11th and an eight hour battle followed, as a result of which, Wilkinson abandoned his plan on Montreal and went into winter quarters at Salmon River, now Fort Covington.

Once again the ship-yards sweated through the winter and when spring came an official return showed that Chauncey had a fleet of 15 vessels of all types, including our four little schooners, mounting 108 guns.

The British on the other hand had laid the keel of the *St. Lawrence*, reputed to mount 102 guns, a vessel as large as Nelson's flagship *Victory* which carried 108 guns.

As soon as the ice broke up the *Lady of the Lake* cruised off Kingston Harbour drawing the fire of the fleet and fort and noting the enemy were ready to come out.

The British had re-armed and re-named their vessels and Sir James Yeo now had three ships, two brigs and two schooners mounting a total of 188 guns under his command and the *St. Lawrence* building.

With such a preponderance of metal it was expected that the British would take the initiative, but they also had new ships to meet for the

Frigate *Superior* was launched at the "Harbour" May 1st, only eighty days after the laying of the keel, and was followed by the *Mohawk* and *Jones*, the former, mounting 44 guns, having been but 34 days in building.

But the two fleets never met, the only great naval action of the year being Perry's astonishing victory on Lake Erie.

On May 5th however Yeo appeared off Oswego and on the following day took it and burned the barracks and stores. It is said his original objective had been Sackett's Harbour but having had the number of his troops cut down by Sir George Prevost, he had chosen the smaller and less strongly held port. Consequently he could not exploit his victory and on the 30th suffered a sharp defeat when a party of marines and sailors attempted a cutting-out expedition near Sandy Creek, to prevent Chauncey from getting supplies from Oswego; every man being killed, wounded, or taken prisoner.

During the summer the *St. Lawrence* made her appearance on the lake and toward the end of July Chauncey moved his whole fleet to Niagara, but except for some gun-boat actions near Kingston and on the river no further fighting took place, the war ending abruptly on Christmas Eve with the news that peace had been signed at Ghent.

In all these actions the four remaining schooners played an active part. They were as useful to Chauncey as the fifty obsolete destroyers were to Britain in the "Battle of the Atlantic" in the recent war.

In 1817 the famous Rush-Bagot agreement between the two nations was signed at Washington. This put an end, for all time, to any naval armament race on the Great Lakes for it limited the armed vessels to a single gun-boat on each lake. The agreement was remarkable for two things, its brevity and the fact it was written in English, the common language of both contracting parties. Perhaps it was because of this it has remained unbroken for a century and a quarter.

It has been suspended twice by mutual consent, during World War I to permit Eagle boats built in Detroit to proceed to the ocean by way of Canadian canals and again for similar purpose in World War II when hundreds of frigates, minesweepers and corvettes born in the pangs of war on both sides of that imaginary line, rushed breathlessly down these narrow channels to unite in the mutual defense of this continent.

It is a far cry from the Rush-Bagot agreement to that signed at Ogdensburg between Canada and the United States, but the one fathered the other, just as the courage and determination shown by our fresh-water sailors in the last World War is a direct heritage from their ancestors who fought the six little schooners.

*The Bulk Freight Vessel**

By LAWRENCE A. POMEROY, JR.

ALTHOUGH IRON was discovered in the Lake Superior region in 1844 by those seeking copper, it was not until the year 1853 that this iron ore was shipped in any quantity. Six barrels of ore from the Marquette range were hauled overland, taken to the Soo by sailing vessel, portaged around the rapids, and then taken by vessel again to the lower Lakes. Previously "blooms" of smelted ore had moved to the Soo, been portaged, and then gone down the lakes, but this proved too expensive considering the total cost involved when the bloom was unloaded at the lower lake ports.[1]

The year 1855 was a memorable one. It marked the opening of the first deep draft canal around the Soo rapids. There had been a canal on the Canadian side from 1797 to 1814, but this had a depth of only two feet. The first shipment of iron ore was also made through the newly completed canal in that year. The brig *Columbia* took 100 tons of ore from Marquette to Cleveland.[2] The new canal made it possible to ship ore by vessel from the Lake Superior territory to the lower lake furnaces without transshipment, and at a lower transportation charge than previously available. After the opening of the canal some ore was carried by propellers and steamboats, but the bulk of the trade went in sailing vessels, usually schooners. This was due to the fact that the ore was heavy and dirty and was frowned upon by the steam vessels, with their passengers and package freight. Furthermore, little speed was required by any ore shipments. On the open lakes the sailing vessels relied upon the winds, but when traversing any of the rivers, they required other aid. Propellers or steamboats would lash vessels on either side and take them through, or powerful tugs would tow the vessels astern.

In 1869 a steamer was built exclusively for the ore trade, taking the form of the modern lake bulk freighter, with its engines aft, navigation

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*This article is part of an essay presented to the Faculty of the Graduate School of Yale University in Candidacy for the Certificate in Transportation, 1936. Mr. Pomeroy plans to bring this paper up to date in a future issue of INLAND SEAS.

1 Williams, Ralph D. *The Honorable Peter White*, Cleveland, Ohio. The Penton Publishing Co., 1907, 53.

2 Ibid, 136

facilities forward, and the space in between, as unobstructed as possible, devoted to the cargo. This steamer, the *R. J. Hackett*, of wooden construction, was 211 feet long by 33 feet beam. She was of 1000 tons capacity, and the hatches were spaced 24 feet between centers. This spacing was quite important in the co-ordination of vessels and loading facilities, as will be shown later.[3] The following year a consort or barge, the *Forest City*, was constructed to be towed by the *Hackett*. This led to the evolution of the steamer and consort system of transportation, replacing the tug and schooner method.

Wood continued as the construction material until 1882, when the first iron steamer was built for the ore trade. Iron had been used in vessels of other types as early as 1862, and also "composite" vessels had been constructed, which combined the use of iron and wood in one vessel. The first iron steamer in the ore trade was the *Onoko*. She was 302 feet 6 inches long by 39 feet breadth and 25 feet in depth. On a 14 foot draft she could carry 3000 tons of cargo.[4] In 1886 steel was first used in the construction of the *Spokane*.[5] She was 310 feet long by 38 feet breadth by 24 feet draft, and had a capacity of 3400 gross tons. In connection with this vessel it might be noted that it has just been scrapped this year, after 50 years of existence.

After the construction of the *Spokane*, steel rapidly became the prime material for lake bulk freighters. An experimental type of vessel, the whaleback, was built in 1888. This was the "101," and more than 40 of her type, both steamers and barges, were constructed. This type, so called because of its resemblance to a whale, being long, narrow and cigar shaped, proved in the end to be not suitable for the lake bulk trade. Few of these are now left, many having been transferred to serve on the Atlantic coast or elsewhere. The next developments were directed towards increasing the size of the vessels and the efficiency of interior arrangement of the hold. This was coincident with the enlargement of the Soo Canal locks, to accommodate longer vessels. The first 400 foot vessels, the *Victory* and *Zenith City*, were built in 1895, of 5300 gross tons carrying capacity. In 1898 the Bessemer Steamship Company, the forerunner of the Pittsburgh Steamship Company, the Steel Corporation's lake fleet, brought out a 475-foot vessel, the *Samuel F. B. Morse*, with a capacity of 6800 gross tons. Boats of 500 foot overall

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3 Jacobs, Fred B. Shipbuilding Science Makes Rapid Strides During Past Fifty Years, *Marine Review*, (July) 1928 58:43.

4 Ibid.

5 Williams, Ralph D., *op. cit.*, 274.

length were built in 1900, when the *John W. Gates*, *Isaac L. Ellwood*, *James J. Hill* and *Wm. Edenborn* were brought out. These are at present owned by the Pittsburgh Steamship Company and are of 7500 tons capacity.

In 1902 the steamer *J. H. Hoyt*, formerly owned by the Interlake Steamship Company, was constructed, and was notable as the first steamer to have its hatches spaced with 12 foot centers instead of 24 foot centers. This aided greatly in the loading because most of the railroad cars used in bringing the ore from mine to lake are 24 feet long. The dock pockets are 12 feet wide center to center, and thus one car when properly placed above the pockets can fill two pockets at one time. Ships had formerly been equipped with the 24 foot center to center hatch spacing. With this spacing every other pocket was used in loading the hatches of the vessel. The ship was then shifted when these pockets were emptied and the alternate remaining pockets were used to complete the loading. The *Hoyt* and its successors, with 12 foot center to center hatch spacing, could be loaded from every pocket, thus cutting the normal loading time in half. Ships at present are built with either the 12 or 24 foot spacing to take advantage of this efficient loading method.

Further improvements followed rapidly. In 1904 the *Augustus B. Wolvin*, now owned by the Interlake Steamship Company, was built as a 560 foot ship, with a capacity of 9700 gross tons. Besides its size, this vessel had other notable features for its time. The hold was built in the general form of a hopper, with sloping sides and ends, sloping inwards from the main deck down to the tank tops. Furthermore, girder arches were used, eliminating the use of stanchions in the hold to support the deck. This cleared the hold of any obstruction and facilitated the loading and unloading process. The *Wolvin* was not the first vessel to have this girder arch system of construction, since the *Sahara* (now the *Cuyler Adams* of the Tomlinson Fleet), built earlier in the same year, was so equipped.

The year 1905 witnessed a further increase in the length of the bulk cargo vessels, with the construction of the *Perkins*, *Gary*, *Frick* and *Corey*, of the Pittsburgh Steamship Company fleet, practically 570 feet long, and of 9700-9800 tons capacity. The next year two 600-foot vessels were constructed, namely the *E. Y. Townsend* and *D. J. Morrell*, at present owned by the Cambria Steamship Company, and of 11,500 tons capacity. The Steel Corporation fleet also acquired eleven 600 foot vessels during 1906-1907. Shortly after this, what is known as the standard lake freighter, of the "600 - 60 - 32" class was developed. This class of vessel averages 600 feet in length, 60 feet in breadth, and

32 feet moulded depth. It is representative of the most common type of large bulk freight vessel on the lakes at the present time, although there are many vessels of smaller size, both in the bulk trade and in other services.

The longitudinal or Isherwood system of framing for vessels has been used on the lakes, in addition to the usual transverse method of construction, or a combination of the two. The *Wm. P. Palmer* of the Pittsburgh Fleet was so equipped when built in 1910. The advantage claimed for this system is that it saves weight in a ship. Thus in a 600 foot ship, 500 less tons of construction material are required by this method of framing. Consequently this means that the cargo capacity or pay load is increased by 500 tons, which will amount to a considerable increase in the course of a season's operation.

Special mention should be made of a comparatively recent vessel development. This is the self-unloader, which is a bulk freighter so equipped that it can discharge its own cargo. One of the first vessels so equipped was the *Alpena*, of the Wyandotte Transportation Company fleet, which came out in 1909. She is 356 feet in length, by 47 feet 2 inches breadth, by 26 feet deep, and of 5500 gross tons capacity. Many vessels have been so equipped since that date, 50 odd in number. Some were built as such, but others have been converted from standard bulk freighters. Those designed for service in the stone and coal trade are generally fitted with the following machinery. The hold is arranged as a single or double V shaped hopper with opening for discharging the cargo by gravity onto an endless belt conveyor running beneath the hopper for the length of the hold. These belts discharge on to a bucket conveyor which in turn takes the commodity up to a discharging boom situated near the forward end of the vessel. This boom, equipped with its own endless conveyor belt, may be swung overside to enable it to discharge the cargo. It is 100 to 180 feet long, can be raised 15 to 20 degrees from the horizontal and usually has a side to side swing of 200 degrees. When not discharging, the boom is securely held in a fore and aft position on the vessel. This machinery is driven by electricity or steam. The rate of discharge for such vessels ranges from 800 to almost 3000 tons per hour. Use of this equipment has been made in the discharge of bulk cargo which will flow by gravity and is not so regular in shape that it will jam on the conveyors. Stone and coal, as well as sand and gravel, are suitable cargoes, but iron ore, of the consistency found in the Lake Superior region is not. The great advantage of the self-unloader is that nothing but a place to land its cargo is needed. With such an arrangement it is possible to discharge a cargo on to a stock pile at a mill or dock, directly on to a breakwater

job in open water, or into a hopper loader for railway cars which in turn loads by gravity when the cars are placed underneath its chutes.

A few self-unloaders are arranged in a manner differing from this system. One or more revolving cranes with clamshells are situated on the deck and discharge overside from the hold. Certain small vessels are also equipped with a clamshell on a boom which discharges overside from the hold. The majority of such vessels are engaged in the sand and gravel trade.

Statistics of a few of the largest vessels are presented here:

Vessel and Owner	*Year Built*	*Dimensions* *L.*	*B.*	*D.*	*Gross Tonnage*	*Gross Carrying Capacity*	*Remarks*
Lemoyne—Canada S. S. Co. . .	1926	633	70	33	10,480	15,000	Canadian
Harry Coulby—Interlake S. S. Co.	1927	630	65	33	10,179	12,500	2800 h.p.
Carl D. Bradley—Bradley Trans. Co.	1927	638	65	33	8,805	14,000	Self unloader steam turbine electric 4800 h.p.
Wm. G. Mather—Cleveland-Cliffs S. S. Co.	1925	617	62	32	8,662	11,400	3000 h.p.
A. F. Harvey—Pittsburgh S. S. Co.	1927	604	60	32	7,973	11,300	2200 h.p.

Methods of propulsion for lake vessels have undergone as great changes as the developments in the size and construction of the vessels themselves. In the early days sailing vessels were used, usually schooner rigged. These continued to be used after the application of the steam engine and even later were used as tow barges, with most of their rigging removed. The *Walk-in-the Water* is generally considered as the first steamboat on the Great Lakes and was built in 1818, of 330 tons, using side paddle wheels driven by steam. She was devoted largely to the passenger trade. In 1841 the screw propeller was applied to the *Vandalia*, and rapidly assumed an important place in lake shipping, being adopted in many cases rather than the side wheel. The first steamboat on Lake Superior was the *Independence*, of 1845, which was portaged around the Soo rapids and relaunched. She was of 375 tons.[6] Her coming to Lake Superior followed the discovery of iron in 1844 in the Superior territory. After the construction of the Soo canal many steamers and sailing vessels had access to Lake Superior.

High powered tugs were used to tow the sailing vessels through the rivers, where sailing was impracticable. This method of towing was

6 Beasley, Norman. *Freighters of Fortune*, New York, Harper & Brothers, 1930, 60.

adapted to steamers and large barges. The *R. J. Hackett* and consort the *Forest City*, of 1870, were the forerunners of the consort and escort method of towage. High powered ships were built to tow the barges and sailboats, each bearing a full load. The system was supplanted by individual powering of vessels, with low powered engines. This method has proven more economical, with less fuel consumption, together with no loss of time in port due to the steamer waiting for a consort. It is a significant fact that the Pittsburgh Steamship Company, the largest American vessel owner, has built no barges since 1900.

The *Onoko* of 1882 was equipped with a fore and aft compound engine developing 900 horse power, and proved more economical in operation than the sailing vessels of the same period. The *Spokane* of 1886 was also equipped with a fore and aft compound engine developing 750 horsepower.

The *Zenith City* of 1895, the first of the 400 footers, was equipped with a triple expansion engine, which was the forerunner of the engine most commonly used at the present time on lake bulk freighters. Some bulk freighters have been equipped with quadruple expansion engines, notably those used in the early vessel and consort system, and a few of the largest of the bulk ships. Steam turbo-electric drive has been installed on some vessels, notably the *Carl D. Bradley* and the *J. R. Sensibar*, both large self-unloading bulk freighters.

The Scotch fire tube boiler is the most commonly used type, although many of the vessels are and have been equipped with the water tube type. The *Zenith City* was the first lake freighter to have water tube boilers installed, having two Babcock & Wilcox units.[7] Two or three boilers are used, dependent on the required steam capacity. Superheaters are also installed on many of the vessels.

Bituminous coal is the usual fuel, although there are some oil burning and diesel vessels. The two freighters of the Ford Motor Company, *Benson Ford* and *Henry Ford II*, of 13,000 gross tons capacity, are the only large bulk freighters equipped with diesel power. Some of the oil tankers and many of the smaller vessels have such equipment, however. One reason for the predominant use of coal is that on the lake bunker coal is relatively cheap as contrasted with bunker oil. Another is that many of the lake transportation companies have contracts with coal producing companies for the carriage of their coal to the various lake ports. It is a wise business move to buy vessel fuel from the concerns which supply the fleets with a sizable proportion of their upbound

7 The Babcock and Wilcox Co. *Marine Steam*, Ed. 3, New York, Bartlett Orr Press, 1928, 4-5.

traffic. However, for many of the smaller vessels not engaged in this traffic, oil fuel and diesel engines may be more economical, especially with vessels where there is no assurance of quick turnaround in ports.

Pulverizing coal burning equipment has been installed on one vessel, the *J. R. Sensibar*, of the Construction Materials fleet, previously mentioned as a steam turbo-electric drive vessel. This vessel was so equipped in 1930 when it was converted into a self-unloader from a standard bulk freighter. The crushers and conveyors from bunker to crusher are electrically driven. Such an installation is claimed to give better combustion, less trouble from hand labor, fewer grate renewals, and a minimum of ash nuisance.[8]

Actual figures for any one fleet indicating the costs of operation are not publicly available. Nevertheless, general figures are presented here. The first set of figures so presented was prepared by the Lake Carriers' Association, an organization representative of the interests of the majority of American bulk vessel owners and operators. These are averages of the net earnings of the various fleets as submitted confidentially by the operators to the Association when it was representing them in a Federal Income Tax dispute during the year 1921.[9] Although these quotations were taken from a period of high prices and high freight rates, a vessel operator has stated that their general magnitude so reflects present conditions as to afford an idea of the various factors involved in operation.

Average Net Earnings Per Mile (1916-1920)

Gross Tons Capacity of Vessel	*Gross Freights Per Mile*	*Per Mile Expenses*	*Net Earnings Per Mile*
Over 10,000 tons	$7.56	$4.48	$3.08
10,000 tons	5.95	3.87	2.08
9500 - 9000 tons	5.73	3.86	1.87
8500 - 8000 tons	4.72	3.54	1.18
7500 - 7000 tons	4.47	3.41	1.06
6500 - 6000 tons	4.74	3.94	.80
5500 - 5000 tons	4.01	3.62	.39

Quoting one source, "From these data it would appear that the earning capacity of bulk freight vessels in the Great Lakes trade increases more than twice as fast as the increase in cargo carrying capacity; or in other words, that *doubling the cargo capacity multiplies the net earnings more than four fold.*"[10] Thus it is easily seen why vessel operators

8 Jannson, A. H. "Huge Dredge Sails on First Voyage," *Marine Review* (December) 1930, 60:32.

9 Treasury Department, Bureau of Internal Revenue: Cumulative Bulletin No. 5, Income Tax Rulings, Washington, D. C., Government Printing Office, 1921, 148-150.

10 Fay, Spofford and Thorndike: *Great Lakes Commerce and the Port of Oswego*, New York, 1927, 1: E-69—E-70.

have constantly striven to build larger and larger vessels, and have been quick to increase the vessel size when reduction of limitations, such as waterway obstructions, dock size and the like have made such changes possible.

The direct operating expenses of a typical 600 - 60 - 32 class vessel are also tabulated.[11] Vessels smaller than this operate at a lower daily cost, as the total crew is less, say 25-30 men, and the scale of wages for the officers is slightly lower. However, as has been shown, this lowered operating expense is not of advantage when smaller capacity results in lower net earning per mile, unless the smaller type ship is especially suited for a certain branch of the trade where the use of a large vessel would be possible.

Item	*Per Day*	*Per Season (8 months)*
Crew (35 men)		
Wages	$167	$40,000
Subsistence	31	7,500
Coal (1.7 lbs. per hour per indicated horsepower)	146	35,000
Stores (deck and engine)	25	6,000
Insurance (3⅜ per cent per season and on cost value)	135	32,400
Total	504	$120,900

These direct operating expenses include no allowance for certain other items: port charges, such as winter mooring charges, together with the salary of a watchman; towing charges often incurred in handling at lower lake ports where the assistance of one or more tugs is required to navigate rivers within the harbor district; management overhead, which may be large or small depending on the company; interest on investment; repair charges; and depreciation. Port charges, towing charges, management overhead and repair charges vary greatly from fleet to fleet and often from time to time. For this reason it is hard to place any definite estimate on their magnitude. However, interest and depreciation are somewhat easier to determine. A new bulk freighter costs anywhere from $750,000 to $1,000,000. Figuring interest at 6 per cent annually gives an allowance of $45,000 to $60,000 for this item. Depreciation at a rate of 3 per cent annually is between $22,500 and $30,000.[12]

With a 600 - 60 - 32 class vessel, the gross expense per mile would be $4.48, according to the table on Average Net Earnings per Mile

11 Fay, Spofford and Thorndike, *op. cit.*, E-28.

12 Treasury Department, Bureau of Internal Revenue, *op. cit.*, Bull. No. 2, 1920, 139.

(over 10,000 tons capacity). This expense can be broken down fairly well into its component items. Assuming that the vessel is of the finest type, the initial cost can be placed at $1,000,000. Interest on this at 6 per cent would amount to $60,000 per year, roughly $250.00 per day, assuming that this has to be taken care of by the vessel earnings in an eight month season (240 days). Likewise, the depreciation allowance at 3 per cent would be $30,000 per year, or $125.00 per day. Direct operating expenses are $504.00 per day, for an eight month season, according to the tabulation of such items. If the ship travels at 11 to 12 miles per hour it can cover 275 miles per day. In that case the direct operating expense would be $1.83 per mile. Furthermore, the interest charge would be 91 cents per mile and the depreciation charge 45 cents per mile, with the assumption that these yearly charges had to be taken care of in an eight month season. The total of these per mile charges when subtracted from the gross expense per mile figure of $4.48 leaves an amount of $1.29 per mile. This sum can then be taken to cover the management overhead, port and terminal charges, and repairs. These totals are tabulated here.

Direct operation expense per mile	$1.83
Interest charges per mile	.91
Depreciation charges per mile	.45
Overhead, repairs, etc., per mile	1.29
Gross operating expense per mile	$4.48

Looking at this situation in another way, the average cost of operation of a large lake fleet comprising vessels of various capacities has been calculated as $.00078 per ton mile, inclusive of all expenses—overhead, depreciation, interest, direct operating charges, and sundry others. Thus it is easily seen that the modern bulk lake freighter is indeed an economical type well suited to its task.

The present day lake freighter, of which there are some 350 American owned vessels, is of steel construction with dimensions in the neighborhood of 600 feet length, 60 feet breadth, and 32 feet moulded depth, of 11,000 - 12,500 gross tons capacity on 19 foot draft. This capacity can be exceeded when conditions allow deeper draft loading of the vessel. Thus, a cargo of 18,000 tons has been carried. Of course many of the older bulk freighters are smaller than this "type," but this is most representative of present day construction. Triple expansion engines are the rule, developing in the neighborhood of 2000 indicated horsepower, with either Scotch or watertube boilers, burning bituminous coal. The machinery, steward's department, and a portion of the crew's quarters are situated at the stern, with a long expanse of cargo

hold in between this after section and the navigation facilities, as well as additional crew's quarters located at the bow of the vessel. The cargo hold may be subdivided by bulkheads or may be an unobstructed expanse. It is covered by a steel deck interspersed with numerous hatchways on either 12 or 14 foot centers. Closely fitting wooden slabs or telescopic steel plates are used for hatch coverings, with additional canvas covering for stormy weather. Tanks are situated below and alongside the hold, and are for water ballast, as the ship when running light would otherwise be quite high out of the water, thus making progress in a wind quite difficult. Speeds of 10 to 12 statute miles per hour are attained, depending on whether the vessel is loaded or light. Common lake practice is to measure speed by miles per hour or not knots. These vessels are often equipped with the latest devices, such as wireless and radio direction finders, and the crew's quarters are of the best. The cost of operation may be stated as $500 per day. Remarkable seasonal performances are turned in by many vessels. Thorough co-ordination of rail, dock and vessel facilities allow prompt dispatch of vessels, with little time in port at either end. Thus one vessel may, in one season, carry as much as 550,000 net tons of freight, both up and down, between ports on Lake Superior and Lake Erie, and at a total cost of one mill per ton mile or less.

Marine Intelligence of Other Days

By Captain John

(This is the second of a series of reprints of articles from old newspapers on Great Lakes ships of the early days. Captain John believes that there is a tremendous lot of interesting data hidden away in the files of these old papers published in towns throughout the Great Lakes area. He urges members of the Great Lakes Historical Society to contribute similar brief sketches from their local papers which are probably on file in their library or historical society. Inland Seas agrees completely with him that this would be an invaluable contribution to Great Lakes history, useful to students and historians and in itself good reading. Readers are invited to contribute.

—*Editor.*)

THE ARRIVAL OF THE ILLINOIS

Chicago—"Our City was all life and animation this morning, and the docks crowded to witness the arrival of this magnificent boat on her first trip up for the season. She had a little difficulty this morning on account of her great size,* in coming in the harbor, and stood off the pier a short time; but she soon came up in gallant style. She left Buffalo on the morning of the second—remained in Detroit a day and a half, and left there last Saturday morning. She came well freighted and brought about 100 cabin passengers and one or two hundred steerage. We understand she had a rough and stormy time in Saginaw Bay, but that she rode the waves 'like a thing of life,' with admirable ease, quietness and beauty, and won for herself the reputation with her other superior qualities of being a first rate sea boat."

Daily Chicago American, June 1, 1839.

*She was about 180 feet long.

GREAT LAKES CALENDAR

By Jewell R. Dean

April, 1946

In this traditional month for the opening of Great Lakes commercial navigation, the date for starting of marine insurance at regular rates at midnight of April 15 found few ships casting off mooring lines due to the wave of postwar strikes that were crippling industry. Most direct of these in effects on shipping were the strike of iron ore miners in the Lake Superior district and the idleness of bituminous coal miners after their contract expired April 1. A few self-unloaders began the short haul coal movement in early April moving coal accumulated at docks before the miners quit. The Pittsburgh Steamship Company, ore cargoes assured for its fleet by an early agreement between miners and the Oliver Iron Mining Company, fellow subsidiary of the United States Steel Corporation, started its ships between April 22 and 27 but laid them up twice during the next five weeks due to lack of fuel coal and the railroad strike.

June I proved to be the general start of the fleets and all ships, except a few in repair yards, and a busy six-month navigation season was promised. Contrary to general opinion, navigation never ceases on the lakes in wintertime. Powerful car-ferries push channels through ice all winter. The 1945-46 cold season found one bulk freighter operating around the calendar, the powerful *James Watt*. She moved coal from Toledo to Detroit all winter, except for a few days when she was halted for repair work and again late in the spring she was tied up by an officers strike. The *Watt*, now owned by the Nicholson Transit Company, Detroit, carried ore and towed barges for many years for the Pittsburgh Steamship Company. She was built in 1896 and is 405 feet long.

Despite the late start of navigation in general, the American canal around St. Mary's Falls had its earliest peacetime opening. It occurred on March 26 when the *Sir Thomas Shaughnessy*, owned by the Mohawk Navigation Company, Montreal, locked through upbound with badly-needed coal for the Algoma Steel Corporation, Sault Ste. Marie, Ontario.

April, 1946

The *J. Watson Stephenson*, Cleveland's last lumber "hooker" and reduced to the lowly role of serving as a breakwater for a small shipyard, burned early in the month. The *Stephenson* had been active as a lumber carrier as late as 1929 before her seacocks were opened and she sank on the city's harborfront to become a breakwater. The wooden ship, 172 feet long, was built by the Wheeler shipyard at Bay City, Michigan, and transported lumber from Saginaw Bay and Georgian Bay to Chicago, Detroit, Cleveland and Tonawanda in the days after lumber had lost its rank as the leading commodity in lake commerce.

April, 1946

Admiral Joseph F. Farley, who became commandant of the United States Coast Guard at the beginning of the year, was honored guest at the annual meeting of the

Lake Carriers Association in Cleveland, April 4. A ship's clock from the freighter *Powell Stackhouse*, on which the admiral was a coal-passer before starting his coast guard career, was presented to him. A. B. Kern, vessel and dock department manager of the M. A. Hanna Co., and Joseph B. Ayers, Jr., vice-president of the Great Lakes Steamship Company, were elected association directors.

APRIL, 1946

The steamer *Charles Donnelly* of the Nicholson Transit Company introduced the "flight" deck to Great Lakes commercial shipping when she started the automobile-carrying trade out of Detroit in mid-April. Automobiles never provided the weight ships are capable of loading and a sturdy deck was added above the *Donnelly's* main deck to handle another "layer" of freight. Other automobile carriers, reconverted for the trade following the wartime shutdown of building of new automobiles, substituted ramps for elevators in discharging cars from their holds. The ramps provides speedier unloading and quicker turnaround for the ships.

APRIL, 1946

The Great Lakes and St. Lawrence River fleet of oil tankers of the British-American Oil Company, Toronto, was sold to J. P. Porter & Sons, Ltd., Montreal, and operation was placed in the hands of the Gayport Shipping Company. Ships of the fleet are the *Britamoil*, *Britamlube*, *Britamolene*, *Britamette* and *Britamoco*. All the ships were built in England for the lake trade and all are of 250 feet in length—maximum for St. Lawrence canals—except the *Britamette* which has only a 130-foot keel.

Two new 258-foot tankers have been ordered built by the Imperial Oil Company, Toronto, for the postwar lake and St. Lawrence trade. The contract, awarded to Collingwood Shipyards, Ltd., was the first for lake ships since the close of the war.

APRIL, 1946

Commodore Frederick P. Dillon, a leader in the development of remote control for Great Lakes lighthouses, retired from the United States Coast Guard as chief of the aids to navigation division at Washington headquarters. Born in Chicago, he served in lighthouse work on the Atlantic coast and in Puerto Rico before being assigned to Detroit as district lighthouse superintendent in 1933. When his service was merged into the coast guard in 1939, he entered technical work for the lake district and went to Washington for wartime duty. He was cited for marking courses safe from the Atlantic coast submarine menace, for marking channels around Japan incident to occupation and for assistance in developing Loran in the Pacific war theater.

APRIL, 1946

Lieutenant Commander A. J. Beckwith, aide to navigation officer of the Ninth Coast Guard District, began terminal leave prior to retirement. This officer, a lighthouse veteran also, recorded lighthouse histories going back as far as 1818 and contributed an article on this subject to INLAND SEAS. (January, 1945, p. 37-38.)

MAY, 1946

Small foreign ships—the 260-foot maximum permitted by locks in St. Lawrence River canals—began arriving in the Great Lakes in a resumption of a trade that was halted by the war. The Fjell Line of Norway resumed its operations with a number of ships, the Oranje Line of Holland with a fleet much reduced by war losses and a newcomer in the field was the Swedish America Mexico Line of Sweden. All the

lines plan expanded service to Canadian and American lake ports. Inbound cargo is light, but outbound lake cargoes are good. Europe-bound material includes surplus government-owned wartime machinery and token export shipments by companies looking to foreign markets in the years ahead.

JUNE, 1946

Loading of coal cargoes on the Cuyahoga River at Cleveland concluded with abandonment of the Erie Railroad Company's dock on Irishtown Bend, the third such dock to be located in the vicinity by the railroad in around 75 years. The railroad, which has no coal mines on its lines and depended on material from other roads, had two early docks of the roll-over type for emptying cars before building the last dumper, steam-operated and one of the first of vertical-lift construction on the lakes, in 1911.

JUNE, 1946

Canadian shipping on the Great Lakes, except for a few tankers, was tied up as a result of a strike by the Canadian Seamen's Union. The strike began late in May and spread gradually. The Canadian government took control of the ships June 24 and restored them to activity, immediately dispatching available vessels to American ports on Lake Erie and Lake Ontario to load coal much needed by her industries as well as to replenish stockpiles for domestic heating next winter. Strikers chose the Welland and Cornwall canals for boarding ships and forcing crews to go ashore. Over 30 idle ships were strung along the banks of each of these canals. In forcing some ships to halt in the canals strikers threw rocks and chunks of coal, but they also used sling shots which were particularly effective in breaking windows aboard ship. Sheet iron punchings were hurled by the slings.

JUNE, 1946

One of the largest vessel-scrapping programs in Great Lakes history began at the Steel Company of Canada plant at Hamilton, Ontario, with the first of 29 overage American freighters being towed to Hamilton from their mooring place at Erie, Pennsylvania. These ships were among 36 traded-in to the United States government during the Maritime Commission's emergency wartime program for expanding the ore fleet. Names of the ships, many of which are well known in lake history, are the *Clarence A. Black*, *Cetus*, *Corvus*, *Cygnus*, *Robert Fulton*, *Kickapoo* (nèe *Capt. Thomas Wilson*), *George B. Leonard*, *Mariposa*, *Maritana*, *Alexander McDougall* (whaleback with a steamer's bow), *Pentecost Mitchell*, *William Nottingham*, *A. W. Osborne*, *Pegasus*, *Queen City*, *Rensselaer*, *Saturn*, *B. Lyman Smith*, *Monroe C. Smith*, *Wilbert L. Smith*, *Herman C. Strom*, *Superior* (nèe *Richard J. Reiss*), *Taurus*, *Alex B. Uhrig*, *Vega*, *Zenith City*, *Cornwall*, *Johnstown* and *Saucon*. Persons familiar with lake ships will recognize several of the famous "star" group—named for stars—as well as several of the "typewriter" group—the Smiths of the typewriter family of Syracuse, New York. The *Uhrig* formerly was the *Centurion* and for years was the speed queen of the freighter fleet. Most of these ships were 50 years old and leaders in size when built.

NOTES

*G. L. H. S. Annual Report—1945**

During the past year the Executive Board of the Great Lakes Historical Society has endeavored, as far as possible, to continue to promote and develop the Society along the lines stated in its original objectives. It has been sustained and supported in these efforts by the alert interest and frequent contributions of personal time and effort on the part of its growing membership whose expressed approval has been a source of inspiration to the officers of the Society. As Mr. Thayer's report states, there are at present 510 members of the G.L.H.S. Twenty-seven states are included in this membership. Particular mention should be made of the valued membership of libraries and historical societies, since one of our stated purposes is to encourage the preservation of material relating to the Great Lakes in this type of organization and to make it available to writers, students and the general public. At present there are 110 libraries and historical societies on our membership list. Among these are such distinguished groups as the American Antiquarian Society, the American Geographical Society, the American Merchant Marine Library Association, the Steamship Historical Society of America, the U. S. Power Squadron, Cleveland Squadron, and libraries from coast to coast. Also 40 shipping companies and other business concerns have taken out membership, 14 of these life. Some of the others are sustaining members.

Since only two memberships falling due for renewal have not been renewed, the Executive Board feels that we are perhaps giving the members what they wish. We do, however, need more members to support proposed activities and to pay for the possible rise in cost of publication of Inland Seas.

Throughout the year, by extensive correspondence and in the pages of Inland Seas, we have endeavored to keep our members in touch with plans and activities. In August the Executive Vice-President and Secretary made a trip to Detroit to visit the Detroit Library and the distinguished Burton Historical Collection. We had also planned to meet the officers of the Detroit Marine Historical Society at this time but unfortunately were not able to do so, due to a conflict in dates.A very pleasant meeting with Mrs. Elleine Stones, Chief of the Burton Historical Collection, resulted in our receiving permission to reprint from time to time some of the valuable documentary source material in the Collection. Mrs. Stones is now an advisory editor of Inland Seas.

In the fall the Society mailed to all its members copies of *Michigan and the Old Northwest*, an attractive picture bulletin designed and executed by a member of the Society—Luke Scheer, of Royal Oak,

*As presented at the Annual Meeting, Hotel Cleveland, Cleveland, Ohio, May 25, 1946, by Donna L. Root, Secretary.

Michigan. This pamphlet told Lake Michigan's story in historical cartoon sequences. Many favorable letters of comment were received from various members.

In November at a joint meeting of the Board of Trustees and the Executive Board it was voted to send a resolution as suggested by ex-governor Chase S. Osborn urging that Sugar Island in the St. Mary's River be considered for the location of the seat of the United Nations Council. Copies of this resolution were sent to President Truman, Prime Minister Mackenzie King, Senate and House of Representatives as well as to the United Nations Headquarters in London.

The quarterly bulletin of the historical society, INLAND SEAS, is now in its second year. The format has only been slightly altered from its original issue but it has been considerably enlarged. Mrs. Stones and Lt. Com. Walter Muir Whitehill, Editor of the *American Neptune*, have been added to the advisory editors. The editors are indebted to this group for invaluable assistance in the procuring of material, especially to Jewell Dean, Marine Editor of the Cleveland *Plain Dealer*, who has contributed the Great Lakes Calendar to each issue and who gives the Society frequent notices in his *Plain Dealer* column. Various other members have been generous too, in manuscript contributions and suggestions.

The Marine Historical Society of Detroit has been particularly helpful in permitting us to print papers given by their members at their monthly meetings. And special mention should be made of the personal interest and constant concern for the format and printing of INLAND SEAS given by Helm Spink of the William Feather Company, our printers. Without his expert advice and unusual talent in the art of fine printing INLAND SEAS would not have won the many compliments on its appearance that we have received.

To Miss Gertrude Robertson, formerly of the History Division staff of the Cleveland Public Library, goes our sincere thanks for her careful execution of the exacting job of making an index for the first volume of INLAND SEAS. And without the competent and willing secretarial services of Miss Arline Hunt, the Managing Editor of INLAND SEAS would be severely handicapped.

Sponsoring an inclusive bibliography of materials on Great Lakes history throughout the area is another one of our original objectives. P. Wayne McDermott of the library has been working for the past year on a finding list of materials in the Cleveland Public Library. Part of this list was published in an issue of INLAND SEAS. This bibliography is nearing completion and should serve as a basis for the full bibliography of materials in the area.

Jay Beswick of the Literature staff has assisted us in proofreading and has written numerous reviews for every issue. Members of the United States Coast Guard and the Cleveland Power Squadron who are also members of G.L.H.S. have worked closely with our officers and given generously of their time and help whenever asked. We have at present a large and attractive joint exhibit (see page 180) with these two groups at the Mid-America Exposition at the Public Auditorium, feature of the Cleveland Sesquicentennial celebration of which William Ganson Rose is the chairman. We also sent an exhibit to the annual meeting of the Steamship Historical Society of America, at Providence, Rhode Island.

Plans for the future development of the Great Lakes Historical Society are not lacking. The Executive Board envisions great possibilities ahead and the putting into action of many plans suggested by the membership. Like all other organizations, however, we are restricted

by a lack of time and money. A plan now in the making is for forming a committee of which Lawrence Pomeroy, Jr., has consented to act as chairman. This committee will work out means of requesting and obtaining pictures of Great Lakes ships in order to develop the G.L.H.S. picture collection, at present a comparatively small collection. Other plans include the drawing into more active participation member libraries and historical societies who have not yet taken an active part.

We particularly wish to maintain the Society as a regional organization and to include with equal emphasis the Great Lakes activities of our Canadian neighbors. Our Canadian associate editor, Fred Landon, recently elected vice-president of the University of Western Ontario, will continue to expand our interests in Canada.

The Executive Board wishes to thank all the members of the Great Lakes Historical Society assembled for their loyal support and most of all for their enthusiasm and interest without which the Society could not function.

The Last American Beam Engine Boat on the Lakes

THE *Montauk* like many of the lake steamers that were built elsewhere and later brought to the lakes, saw many years of service on the lakes and finished her days as such.

Side-wheel steamer *Montauk* No.92294, built at Wilmington, Delaware, by Harlan and Hollingworth, Hull No. 263. The keel was laid January 12, 1891, launched March 31, 1891, documented May 22, 1891. The owners Harlan and Hollingworth delivered her on June 8 to Montauk Steamboat Company, New York, with the following dimensions, 2468 tons displacement, 1483 tons deadweight, 571 gross tons, 449 net tons, hull of Swedish iron, length 175 feet between perpendiculars, 31 feet molded breadth, 50 feet over guards, 11 feet depth of hold. Harlan and Hollingworth built the engine and boilers, engine vertical beam 38-inch bore of cylinder, 9-foot stroke of piston, two single end Scotch boilers 9 feet 3 inches diameter, 11 feet long, 60 pounds of steam, 2,014 square feet of heating surface, 20 square feet of grate surface.

The wheels were of the Featherin Type 20 feet 6 inches diameter, wooden buckets with a speed of 17 miles per hour.

She had two decks, four water tight bulk-heads, forty-four state-rooms.

The Montauk Steamboat Company was a private enterprise conducted by Captain George C. Gibbs, incorporated April 13, 1886, *Montauk* ran from Pier 23, East River, New York, to Orient, Greenport, Shelter Island, Southhold, and Sag Harbor. She ran in company with her sister-ship *Shelter Island* until the latter was lost in 1896. The company headquarters were at Sag Harbor, Long Island. Gibbs sold his steamboat interest in 1893 to Starins. Control of the Montauk Steamboat Company passed to the Long Island Railroad, May 1899.

Montauk was sold at New York, March 28, 1902, and registered at St. Johns, Newfoundland, April 16, 1902. The bill of sale was made to Edward V. Douglas, Vice-President of the Algoma Central & Hudson Bay Railway, Sault Ste. Marie, Ontario, May 8, 1902. She was renamed *King Edward* and given Canadian official number 113897. There is no record of her going to Newfoundland. Her starboard wheel and guard were

taken off at Montreal to allow passage through the canals. They were put back on at Buffalo.

At this time there was a movement around the Canadian Soo to develop this part of Canada. *King Edward* was placed on a route with the Propeller *Ossifrage* from Toledo, Detroit to Georgian Bay, North channel ports and Sault Ste. Marie. Collingwood paper of October 5, 1905, says that she took the place of the *Ossifrage* running from Collingwood to the Canadian Soo. In 1905 twenty more staterooms were added.

On May 9, 1910, she was sold to the Ontario & Ohio Navigation Company of London, Ontario. On May 26, 1910, she was renamed *Forest City* and placed on a route from Cleveland to Port Stanley, Ontario, alternating from Cleveland to Rondeau, and later to Leamington, Ontario.

She was again sold on June 7, 1912, to Richard Clayton Eckert and Everett Handel North, making a few trips from Cleveland to Fort William with emigrants and on October 15, 1912, she was sold to the Silver Islet Navigation Company, Ltd., Fort William. According to W. Russell Brown of Port Arthur she ran some time from Port Arthur to Silver Islet and after the start of the first world war was laid up at Port Arthur.

On February 18, 1918, she was sold to Michael McCulloch. Michael McCulloch sold her to Katherine Murphy of Sturgeon Bay, Wisconsin. Permission to transfer the vessel to American register was granted by the Canadian Government and she was documented at Milwaukee, Wisconsin, June 15, 1922, under her original name *Montauk* and original number 92294, operating on the Chicago lake front. On June 19, 1923, she was sold to the North Shore Steamship Company of Chicago, and transferred back to Katherine Murphy on September 13, 1923, who in turn sold her to Clow & Nicholson Steamship Company of Duluth on September 18, 1923.

When Clow & Nicholson acquired the *Montauk*, much remodelling was done to make a day excursion boat of her. Thirty-six staterooms were removed, houses removed from the main deck, and a large dance hall built, as well as refreshment stands. The dining room was no longer used to feed passengers. The staterooms that were left were used as crew quarters. She ran principally from Duluth to Fond du Lac, moonlights around St. Louis Bay and occasionally excursions to different Lake Superior ports. As stated above, she closed the 1940 season, and after lying idle at Duluth she was sold on January 19, 1942, to West End Iron & Metal Company, Duluth, and dismantled. Machinery and boilers were removed and scrapped, the hull was sold to Walter W. Bowe and A. B. Powers of Duluth on October 22, 1943, who sold her on August 2, 1944, to Lyons Construction Company of Whitehall, Michigan, and towed from Duluth to Whitehall where she was still lying on August, 1945.

The interesting part is that she came back under American register by permission of the Canadian Government, although the records of Ottawa and St. Johns show that she never was of Canadian register, but was listed in some of the later Canadian Lists of Shipping and carried a Canadian official number "113897" which was given her on May 8, 1902. She was of British Register from April 16, 1902, to June 15, 1922.

Albert Bourassa, a Duluth tug boat captain, told me in 1929 that when she was transferred from Canadian register to American register, the Canadians put her on Isle Royal and the American wreckers took her off. This was to avoid the duty and other complications, as she was sold and registered under Newfoundland documentation to avoid Canadian

duty. She was sold foreign and came back without anyone paying any duty.

Her first master was Joshua Gibbs and the last B. J. Roberts. In between she had been many things to many men.

Sources of information: American, Canadian and Newfoundland Customs; H. Cotterell, Jr., Newark, New Jersey; W. Russell Brown, Port Arthur; Louis Baus, Cleveland; Bethlehem Ship Building Company, Fore River, Massachusetts, successors to Harlan & Hollingworth.

(1) Leamington, Rondeau and Port Stanley, Ports North Shore, Lake Erie.

(2) Silver Islet, page 797, *Great Lakes Pilot*, vol. 1, 1921, 48° 19′ N & 88° 49′ W.

(3) Fond du Lac 5½ miles above Duluth on St. Louis River.

(4) Isle Royal, Lake Superior, the largest American island on fresh water.

—F. E. Hamilton.

Lake Erie International Vacationland

The Lake Erie International Vacationland Conference conducted this summer a tour of the American and Canadian rim of Lake Erie. Starting by bus from Cleveland on Monday morning, June 24, the party drove to Niagara Falls, where the night was spent. The next two days were spent in Canada, reaching Detroit Wednesday night. Then came a tour of the western south shore of Lake Erie, winding up in Cleveland Friday afternoon, June 28. Historical and recreational points of interest were visited. Clarence S. Metcalf, Executive Vice-President of the Great Lakes Historical Society was with the group.

Establishment of an automobile ferry and passenger boat service from Cleveland to Canada is urged by the Lake Erie International Vacationland Conference. In prohibition days service was provided between Cleveland and Port Stanley, and well patronized.

Leathem D. Smith

Leathem D. Smith, president of the Leathem D. Smith Shipbuilding Company, Sturgeon Bay, Wisconsin, and a trustee of the Great Lakes Historical Society, was one of four persons drowned June 23 in Green Bay, approximately five miles off Sturgeon Bay, when his racing sloop, the *Half Moon*, overturned in a squall. The party was returning home from a race to Menominee, Michigan, across the bay. Patricia Smith, 18, daughter of the shipbuilder, was the only survivor. Lost besides Mr. Smith were Miss Mary Loomis, 18, Winnetka, Illinois, college friend of Miss Smith, Elton Washburn and Howard Hunt, executives of the shipbuilding company.

Miss Smith was in the water six hours before reaching shore to report the tragedy. Mr. Smith had given the one life preserver obtained from the sinking craft to the girls and shook hands with his daughter before the girls started to swim ashore. Miss Loomis, exhausted, slipped from the preserver near shore.

Mr. Smith had purchased the 38-foot *Half Moon* from James Roosevelt, son of the late President Roosevelt. The shipbuilder and his firm were named in honor of his father's shipbuilding partnership at Sturgeon Bay, Leathem & Smith. The Leathem D. Smith company had been a minor one in the lake shipbuilding field until World War II. On January 1, 1941, the company was starting contracts with the Navy with 40 persons on a monthly payroll totaling about $7,000. On January 1, 1944, the payroll list had reached 5,200 and $1,250,000 monthly. After the close of the war the company had become a factor in repair of Great Lakes freighters and was building for ocean lines a steel freight container—a Smith invention—that speeded up the loading of ships and provided complete protection for merchandise against breakage and pilferage.

Ship Ahoy!

An attractive blue covered pamphlet entitled *Ship Ahoy* by the sixth grade children of Oliver Wendell Holmes School was received as a gift to G.L.H.S. from the teacher and class. It contains ten brief essays by the children about Great Lakes boats such as the *Walk-in-the-Water*, Whalebacks, Freighters, etc. This is the class whose story was told in the April 1946 issue of Inland Seas. It was titled *The Great Lakes in the Classroom* by A. Winifred Elliott. The booklet looks like a little cousin to Inland Seas and may well be the work of future members of G.L.H.S.

G.L.H.S. Annual Meeting

Members of the Great Lakes Historical Society met on May 25th, 1946, for dinner in the Rose Room of the Hotel Cleveland. There were 110 members present, including a representation of about 15 from the Detroit Marine Historical Society who came over very appropriately by boat. Robert H. Larson, Kenneth E. Smith, and Thomas B. Dancey, present and past officers of the Society spoke briefly of their organization and expressed enthusiastic interest in the Great Lakes Historical Society.

The late Leathem D. Smith of the shipbuilding company of the same name was the featured speaker of the evening and talked about fighting ships of the war as built on the Great Lakes, illustrating his talk with a series of fine slides. Many other members responded informally to a roll call by Clarence S. Metcalf, Executive Vice-President, with serious or humorous comments on their Great Lakes interests.

The business meeting was very brief, reports were kept to a minimum and former officers reelected unanimously. The annual report of the Society as presented by Donna L. Root, Secretary and Managing Editor of Inland Seas, is printed in this issue.

The evening was a grand opportunity for friendly conversation and getting acquainted with each other. So much interest and enthusiasm was in evidence that it was long after the meeting was formally adjourned before our members wished to leave. Absent members were greatly missed and it is hoped that at future meetings more members from out-of-town will be able to come.

Report of the G. L. H. S. Membership Committee

A membership committee was appointed last fall to systematize the recruiting of members. This consisted of Lieut. Commander A. J. Beckwith, Bert C. Brennan, R. A. Brotherton, Wade C. Browne, Louis H. Burbey, Thomas B. Dancey, Captain R. W. England, Milton Gallup, Captain H. C. Inches, A. A. Mastics, Lieut. C. Bradford Mitchell, H. A. Musham, Grace Lee Nute, Captain Carl O. Rydholm, and W. O. Stubig, with the writer as chairman. This list included some of our most active and successful advertisers of the Society who both before and after their appointment have been tireless in suggesting names for us to circularize. One man should particularly be mentioned, Captain H. C. Inches, who must have brought at least thirty members into the Society.

Some eighty non-member libraries were circularized, and a good many responded with subscriptions. It is next the plan, as suggested by Dr. George W. Stober, to ask the various yacht clubs in the lakes area to post on their bulletin boards a statement about the Society.

In some degree as a result of these activities, but even more due to the initiative of our members, the Society num-

bered, according to the April, 1945, issue, 276 members. By April 1946 the membership was an even 500, and several have been added since.

The officers and trustees of the Society all hope that each and every member will do his best to bring in at least one recruit. It is well known that of all ways to build up a business, none is better than the word-of-mouth advertising that comes from satisfied customers.

— Gordon W. Thayer,
Chairman.

Steamship Historical Society Exhibit

At the invitation of Edwin A. Patt of Barrington, Rhode Island, the Great Lakes Historical Society exhibited copies of Inland Seas and information about the Society at the exhibit which he assembled for the Steamship Historical Society of America at the Rhode Island Historical Society in Providence. Mr. Patt sent the program of the New England meeting and a rotogravure article on the exhibit from the Providence *Sunday Journal* with this letter:

"The exhibit of our Chapter at Providence closed last Friday evening after two weeks of capacity crowds which totalled over a thousand. We were extremely pleased with the amount of interest manifested by the people of Providence in the story of the old steamboats.

"I had occasion to mention your Society to quite a few people and passed out the membership forms to those who were interested. No doubt you will hear from them in due time. Copies of Inland Seas attracted considerable attention in spite of the fact that the exhibit was almost 100 per cent Long Island Sound and Narrangansett Bay.

"I sincerely hope that your Society and the Steamship Historical Society of America will find a basis for mutual aid and that both groups will succeed in the splendid objective of preserving the story of steamboating for future generations."

The Milwaukee

I should like to lodge two minor complaints against Mr. Vargo's interesting item on the 1929 storms (Inland Seas, April, 1946, p. 127-8). The first which applies both to the text on page 127 and to the illustration on page 109, is the misuse of the name *City of Milwaukee* to designate the ferry lost in 1929. Close inspection of the picture so labelled will reveal that the name was simple *Milwaukee*, and a reference to the federal registers will bear out the fact. The second objection is to a statement which the author perhaps intended to be interpreted loosely, but which seems to me misleading—namely, "she had been on the crosslake run since . . . 1903." Actually, of course, she came from the builders as *Manistique, Marquette & Northern 1*, and bore that designation for five years. Her original route, if I am not mistaken, was from Northport to Manistique, for the Grand Rapids & Indiana which she connected with the M., M. & N. Not until 1909 was she renamed *Milwaukee*.

—C. Bradford Mitchell.

A Gift to the Society

Through the courtesy of Robert F. Wierum, superintendent of the Detroit Episcopal City Mission Society and a member of the Great Lakes Historical Society, copies have been received of the pamphlet, "The Story of the Mariners' Church of Detroit, 1848-1945," mentioned in Inland Seas for April, 1945. It includes a list of rectors and trustees. There are two illustrations, and on the cover a handsome cut of the church.

Two New Book Lists

Two useful booksellers' catalogues have been issued by members of the Society. One is "Naval Material," being Short List 12 of Alfred W. Paine (Carola W. Paine, Successor) of New York City. This has many Civil War items, and some titles on British shipping. "Great Lakes List No. 1" is by Wade C. Browne of Cleveland. It comprises some photographs as well as books, and novels as well as non-fiction.

—G.W.T.

The Great Lakes in Print

An Index to magazine articles and notes on the Great Lakes which have appeared in current periodicals not exclusively devoted to the Lakes.

The Canadian Geographical Journal, April, 1946. Ontario surveys and the land surveyor, by W. F. Weaver. June, 1946. Mapping a hundred years of change in the Niagara peninsula, by J. W. Watson.

The Journal of American Folklore, October-December, 1945. Ojibwa Songs, by John F. Davidson. Gathered in Ontario north of Lake Huron.

Michigan History Magazine, April-June, 1946. Silver and gold in Michigan, by Lew Allen Chase. Old Detroit: drainage and land forms, by Bert Hudgins. Minneapolis shoal, nemesis of boats; Jane Schoolcraft monument.

The Ohio State Archaeological and Historical Quarterly, April-June, 1946. Sandy and Beaver Canal, by W. H. Van Fossan.

This Month's Contributors

John Bennett, the author of the boys' classic, *Master Skylark*, is now a resident of Charleston, South Carolina. He has recently published *The Doctor to the Dead*, a best-selling collection of Negro stories.

Lt. Col. F. C. Curry is president of the Leeds & Grenville Historical Society of Ontario and author of *From the St. Lawrence to the Yser*, Murray, London, 1916, the story of his experiences in World War I. He owns the Curry Drug Co. of Brockville.

Lawrence A. Pomeroy, Jr., now traffic manager with National Malleable & Steel Castings, Cleveland, was recently a navy lieutenant on the staff of Admiral Spruance, Commander of the Fifth Fleet. He participated in the occupation of Japan and before that was connected with Shipping Control in Admiral King's office.

Mrs. Grant Rideout is a specialist in historical and genealogical research and is a member of the London Society of Genealogists. She lives at Chagrin Falls, Ohio, and Chicago City, Minnesota.

Leathem D. Smith, president of the Leathem D. Smith Shipbuilding Company, a trustee of the Great Lakes Historical Society and an outstanding figure in Great Lakes shipbuilding was drowned June 23, 1946. An account of the tragedy appears elsewhere in Inland Seas.

M.S. is Mildred Stewart, Head of the Science Division of the Cleveland Public Library; M.S.M. is Minnie Monti of the Order Department; J.W.B. is Jay W. Beswick of the Literature Division.

Book Reviews

THE GREAT LAKES-ST. LAWRENCE SEAWAY AND POWER PROJECT, by Tom Ireland. Published by Cleveland House. Distributed by G. P. Putnam's Sons, New York, c1946. Paper, 50 cents.

Tom Ireland, Cleveland author and lawyer, has long been an advocate of the proposed project to make the Great Lakes-St. Lawrence waterway navigable to ocean-going vessels. In this sixty-one-page pamphlet he sets forth what he believes to be the chief arguments in favor of the project, and attempts to answer some of the objections that are frequently raised against it. High on the list of beneficial results, as he sees them, would be the reduction of costs, improvement of national defense, relief of the population congestion on the Atlantic seaboard, the development of hydro-electric energy incidental to the construction of the navigation works, and the counter-balancing of the effects which the Panama Canal has had on the mid-western United States. The booklet contains also a brief history of the plans to modernize the waterway and an explanation of what still remains to be done to complete this modernization, including principally the deepening of the St. Mary's, St. Clair, and Detroit Rivers to a uniform depth of 27 feet, and the removal of obstactles in the International Rapids Section of the St. Lawrence.

Much of the same subject matter is covered as in the author's earlier book entitled *The Great Lakes-St. Lawrence Deep Waterway to the Sea* (New York, London, G. P. Putnam's Sons, 1934), and some passages are here reprinted verbatim; but this is a much more concise statement of the case, and for the most part the material has been completely reworked. It has been brought down to date to include recent developments and statistical information which have a bearing on the question, and Mr. Ireland seeks to support his views in terms of present-day needs.

—J.W.B.

THE HISTORICAL COLLECTION OF THE INSURANCE COMPANY OF NORTH AMERICA, by M. J. McCosker. Philadelphia, Indemnity Insurance Company of North America, 1945.

Insurance companies' ventures into literature are popularly supposed to be limited to the fine print on the policy which no one reads, and which later is sometimes found to contain great surprises. Not so with the Insurance Company of North America, which, ever since its founding in 1792, has had an historical museum, and now has published this handsome brochure.

Most of the material relates to fires and firemen. There are paintings, fire insurance marks, buckets, warden's staffs, hand pump engines, belts, hose reels and parade wagons, horns, hook and ladders, hats for work and parade, etc., etc. The illustrations are many, some in color. Who would ever dream of seeing a portrait of Benjamin Franklin wearing a fireman's helmet and looking singularly at home?

Readers of Inland Seas will find most interest in the marine paintings, prints and memorabilia. The ship models should have special appeal to the Great Lakes

Historical Society's own Captain H. C. Inches, whose collection was described in INLAND SEAS for April, 1945. All these art objects relate chiefly to ocean-going craft, of the clipper ship days. One Ohio River sidewheeler, the *Geo. W. Neare*, is reproduced.

The encouragement of museums is one of the Great Lakes Historical Society's chief purposes. While one like the present needs no help, it is a pleasure to call it to the attention of the many who will be interested. —G.W.T.

STABILITY AND TRIM FOR THE SHIP'S OFFICER, by John LaDage and Lee Van Gemert. New York, Van Nostrand, 1946. $3.00.

Most of the books on this subject are for the naval architect or shipbuilder, while this one, written by two lieutenants in the Maritime Service, who are instructors in ship construction at the United States Marine Academy, is planned to fill a gap in the information available for the merchant officers. The next stresses the practical side of the subject, makes for better loading of cargo and supplies, greater comfort of the crew, economy in repair bills, and lessens the chance of losing a damaged vessel.

Chapter headings are: What is Stability? Calculation of Metacentre Height (G.M.), The Calculation of KM, The Inclining Experiment, Stability at Large Angles of Inclination, Free Surface, Damage Stability, Trim, Stability and Trim Computers and Tables, Marine Disasters Due to Loss of Transverse and Stability.

A typical loading problem for a voyage in Oriental waters is carefully worked out with charts. The book necessarily has a good deal of mathematics, for scientific loading is nothing to be done by offhand guess. A useful handbook for officers.

—M.S.

HISTORICAL TRANSACTIONS, 1893-1943, OF THE SOCIETY OF NAVAL ARCHITECTS AND MARINE ENGINEERS. New York, The Society, 1945. $7.50.

Here is an important and handsomely illustrated book with a wide appeal for readers of INLAND SEAS. Of its papers on the development of American shipbuilding and shipping, eleven deal with the United States Navy yards, and ten with the private yards; while six cover such topics as the development and history of marine watertube boilers, steel in shipbuilding, and the progress of the industry all the way from Leif Ericson's discovery of America nearly a thousand years ago down to the present day. There are chapters on early American steamship lines, on the history of tankers and of ferryboats. While this last was published too early to profit by Thomas B. Dancey's article, "Lake Michigan Car-ferries Yesterday and Today" in INLAND SEAS for July, 1945, it speaks of the lake boats, and winds up with alphabetical lists of ferryboats now in service, on both lakes and sea, with dimensions, tonnage and horsepower, and of companies operating these boats. The Great Lakes ferries are included in these lists.

"Shipping on the Great Lakes" is discussed by James C. Workman, chief engineer of the American Ship Building Company of Cleveland. This is a comprehensive, well-illustrated account starting from Indian canoe days, speaking briefly of industrial development and canals, and then proceeding to a detailed story of bulk carriers, with plans. The chief lake steamship companies are listed with their total number of boats in and out of commission, and their tonnage. Passenger steamers and car-ferries are likewise described in detail.

Following Mr. Workman's paper are several pages of discussion by members of the Society, which add a good deal of information. The fine illustrations to the paper,

as well as to the rest of the book, make it one to be coveted by all collectors of ship pictures and history. —G.W.T.

THE DISCOVERY OF CANADA, by Lawrence J. Burpee. Toronto, The MacMillan Company of Canada, Limited. 1944. $3.00.

The trouble with most of the people who write history is that they have axes to swing or to grind. They aren't content to tell their stories; they feel constrained to interpret such facts as are available so as to support their own pet social, political or economic theories. They are, it would appear, unwilling to let the reader draw his own conclusions. They must, as they see it, approach the study of the human past as a "social science" rather than as the finest story in the world.

Lawrence J. Burpee, F.R.G.S., F.R.C.S., LL.D., has exercised more self control. His *Discovery of Canada* doesn't undertake to sell anybody anything except the very reasonable idea that the story of the exploration of Canada is one of the best. Himself a distinguished historian, Dr. Burpee has depended, in so far as possible, on the personal narratives of the great pathfinders. His introduction puts it thus—"So it seemed to me that it might be worth while to let the story of the discovery of Canada tell itself as each part of it, east or west, north or south, became known to the man who made the discovery."

We must hope that this revolutionary idea will catch on. A lot more youngsters, and adults, too, will read a lot more history if more historians follow Dr. Burpee's lead.

Dr. Burpee has made Canadian history his life work and his *Discovery of Canada* is a summing up of the most fascinating part of the story. Those whose principal interest is in the Great Lakes, will not be disappointed. Canadian exploration naturally followed the lines of least resistance and no other land is so fortunate as the Dominion where inland waterways are concerned.

The *Discovery of Canada* is completely indexed and contains a bibliography which will be valuable to the reader who wishes to retrace any part of Dr. Burpee's path. An unusual feature and one of much interest and value, is a series of biographical notes—eighteen pages of them—on the explorers who have place in the narrative. —I.S.M.

AMERICA IS WEST, by John T. Flanagan. Minneapolis, University of Minnesota Press, 1945. $3.75.

This is a collection of sources describing the Middle West, including the Great Lakes region, from the early explorers down to Abraham Lincoln and Henry Wallace. There are sections on folklore and legend, the Indian, the early explorers, the frontier, the woods, the farm, the river, the small town, the city and typical Midwesterners.

Of direct concern to the Lakes are but two articles. One is Alexander Henry's "Indian Attack on Michillimackinac," taken from his autobiography and covering the period of the Revolution. This is a thrilling account of his captivity and narrow escapes from death.

Then there is "The Fox Wisconsin Route" by Jonathan Carver, that 18th century traveler who is not always as truthful as he might have been.

Whether directly concerned with the lakes or not, the extracts are all interesting and varied. It is a good book to keep on the living room table. —G.W.T.

MEMBERSHIP OF THE GREAT LAKES HISTORICAL SOCIETY

(SUPPLEMENTING LISTS IN EARLIER ISSUES)

(Names are given in order of joining)

Claude VerDuin, 406 Howard Street, Grand Haven, Michigan
Frank J. Brady, 510 West 184th Street, New York, New York
Gustave Moebs, 16730 Greenlawn Avenue, Detroit, Michigan
J. H. Macleod, The Hinde & Dauch Paper Company, Sandusky, Ohio
Sidney Frohman, The Hinde & Dauch Paper Company, Sandusky, Ohio
Brown University Library, Providence, Rhode Island
Beloit College Library, Beloit, Wisconsin
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Lawrence A. Pomeroy, Jr., 10600 Quincy Avenue, Cleveland, Ohio
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W. E. Lyman, Foot of First Street, Sandusky, Ohio
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Ralph A. Emberg, 18 Kennan Street, Santa Cruz, California
Dr. North W. Shetter, 1495 Wyandotte Avenue, Lakewood, Ohio
S. W. Sexsmith, The M. A. Hanna Company, 1300 Leader Building, Cleveland, Ohio
Mentor Harbor Yacht Club, Mentor, Ohio
K. R. Marshall, 79 King Street East, Toronto, Ontario, Canada
Newton Walters, 1108 Superior Street, Sault Ste. Marie, Michigan
Grant A. Smith, The Smith Hardware Company, 401-405 South Riverside Avenue, St. Clair, Michigan
T. L. Gilbert, 2017 National Bank Building, Detroit, Michigan
Henry DeBruyne, 3705 East 4th Street, Superior, Wisconsin
Dr. Frank J. Novak, Jr., 30 North Michigan Avenue, Chicago, Illinois
Henry J. Lester, 2338 East Erie Avenue, Lorain, Ohio
Miami University, Oxford, Ohio
William H. Stuart, 850 Lake Shore Drive, Chicago, Illinois
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THE GREAT LAKES HISTORICAL SOCIETY

S A NONPROFIT ORGANIZATION SPONSORED BY THE CLEVELAND PUBLIC LIBRARY

Its objectives are to:

Promote interest in discovering and preserving material on the Great Lakes and the Great Lakes area of the United States and Canada, such as books, documents, records and objects relating to the history, geography, geology, commerce and folklore of the Great Lakes.

Centralize information regarding such collections through the cooperative efforts of local historical societies and libraries throughout this area.

Sponsor an inclusive bibliography or finding list of materials on Great Lakes history and historical material scattered over the entire area and to be found in public, private and college libraries, in historical societies and religious institutions of the United States and Canada.

Publish INLAND SEAS, a quarterly bulletin containing articles and memoranda pertinent to the interests of The Great Lakes Historical Society and those interested in the history and commerce of the Great Lakes.

The Great Lakes area is the richest in the world, with a fascinating and romantic history. The Society is working for public appreciation of the courage, enterprise and sacrifice of our people who built up this great region and for permanent preservation of its history.

Annual membership fees of the Society are used for the publication of INLAND SEAS, for costs of preparation of the Lakes bibliography, and for any other projects approved by the Board of Trustees.

It offers three types of membership: Life (individual or organization), $100.00; Sustaining individual or organization), $10.00 or more annually; Annual Membership (individual or organization), $5.00 annually. Please make checks payable to The Great Lakes Historical Society, 325 Superior Avenue, Cleveland 14, Ohio.